

Issued Each Week—Only One Dollar A Year

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NUMBER 20

Dairy and Cold Storage  
Safe Cans, Peas  
Life

# FARM AND DAIRY

&

## RURAL HOME

PETERBORO, ONT.

MAY 15

1913



A FORM OF POWER STILL OF GREAT VALUE AND POPULAR WITH THE FARMER

The pure bred Clydesdale mares, here illustrated, constitute the most efficient and economical power on the farm of W. J. Cox, Peterboro Co., Ont. And what is true of the farm of Mr. Cox is true of at least 99 out of 100 farms in Canada. Electric, gasoline and wind powers all have their place on the farm, and an important place it is, but on the improvement of no class of power can the farmer more profitably concentrate his attention than on the breeding of more efficient horses. There will be a ready market for the best horse power for generations to come. But it must be the best. We can't afford to raise any other.

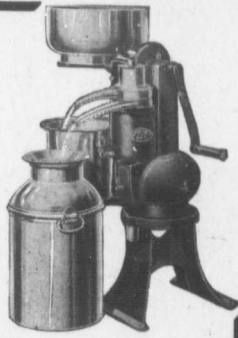
—Photo by an editor of Farm and Dairy.

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## Two Great Helpers

For You

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The favorite everywhere it goes. Note its beauty and heavy compact construction, with low-down, handy supply can only 3 1/2 ft. from the floor.

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**What would you give to be able to free yourself from the drudgery of hand milking, and be able to milk all of your cows (and as many more as you wanted to put in), doing the milking thoroughly and successfully by mechanical means.** A B-L-K Milker will milk your cows for you. Quiff costs not so much as you might think. Write for booklet describing it all.

You can send us a rough sketch of your stables, tell us how many cows you want to milk, say whether or not you have power available, or will require power, and WE'LL FURNISH YOU WITH AN ESTIMATE of just what it will cost you to put in your stable a B-L-K mechanical milker. There will be no obligation on your part to buy. It will interest you to have these facts. It will pay you, as it pays others, to have a B-L-K milker.

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### PROPOSED NATIONAL DAIRY SHOW AGAIN APPROVED

AS announced in last week's issue of Farm and Dairy, representatives of the dairy interests in Ontario met in Toronto April 30 to consider the advisability of arranging for the holding of a dairy show in Toronto the latter part of next year. Those present deemed it recommended such action to the associations they represented.

Readers of Farm and Dairy will remember that at the annual convention of the dairymen's and dairy cattle breeders' associations held last winter, representatives were appointed by the different associations for the purpose of holding a conference to consider the advisability of holding a national dairy show. Representatives were appointed by the Eastern and Western Ontario Dairymen's Associations and by the Ayrshire and Holstein Cattle Breeders' Associations. It was the representatives of these associations who met in Toronto last week. Those present were: Frank Hems, London; E. E. Facey, Harrietsville; Canboro; and T. Ballantyne, Strathroy, representing the W.O.D.A.; John McKee, Norwich, and A. C. Hammill, Box Grove, representing the Ayrshire Cattle Breeders' Association; Jas. Rettie and E. A. Hulet, Norwich and M. H. Halsey, Springfield, representing the Holstein-Friesian Cattle Breeders' Association; A. Drummond, Toronto, representing dairy supply firms; and H. B. Cowan, Farm and Dairy, Peterboro. Mr. T. A. Thompson, secretary of the Eastern Ontario Dairymen's Association, wrote that owing to an accident he had met with, in which he had broken his arm, he would be unable to be present.

#### EARLY EFFORTS

At the outset of the meeting Mr. Cowan was asked to relate the steps that had been taken some seven years ago to hold a national dairy show. It was pointed out that at that time the proposal had been discussed by the dairymen's and dairy cattle breeders' associations, each of which had appointed representatives to act of a central committee. This committee had met and selected, Toronto as the place for holding the show. The city of Toronto had agreed to furnish suitable buildings free of cost, and to light and heat them. The dairymen's associations had agreed to provide the funds to insure a good exhibit of cheese and butter. The dairy cattle breeders' associations had agreed to contribute enough money to insure a good prize list for exhibits of dairy cattle. The dairy supply firms had offered to supply over \$1,000 towards the funds of the exhibition, and to make exhibits. In this way the financial success of the Exhibition had been guaranteed beforehand. When, however, the deputation representing the dairy interests waited on Hon. Mr. Mcnair, Minister of Agriculture for Ontario, and asked for his support, he had refused it, and had also declined to allow the dairymen's associations to take part mainly because he was afraid the withdrawal of the dairy cattle exhibits from the Guelph Winter Fair would be likely to injure the Guelph Exhibition.

CHASING CONSENSUS  
Mr. Cowan explained that the oppositions of the Department had prevented a show being held at that time but since then the conditions have changed considerably. The success of the Ontario Horticultural Exhibition has demonstrated that it should be possible to make an even greater success of a large dairy show. The addition of classes for horses at the Guelph Winter Fair has so crowded accommodation there it is now found difficult to provide sufficient room for the exhibits, and suitable hotel facilities are lacking. The

withdrawal of the dairy cattle exhibits from the Guelph Winter Fair would tend, therefore, to relieve the pressure there.

The holding of a national dairy show would bring together the dairy interests of the province as it not now does. The exhibitions of cheese and butter held by the different associations could be united in one large exhibition, the dairy cattle exhibits could be added and there would be facilities for making large exhibits of cheese factories and creamery supplies, dairy utensils of all kinds, and conventions could be held separately by the cheese and butter makers of the province, by the dairy farmers, milk and cream shippers, and allied interests.

#### THE PROPOSAL ENDORSED

A full discussion of the proposal then took place. It was found that the meeting was unanimously of the opinion that such a dairy show should be arranged. Mr. Hammill raised the point as to what should be done in the event of a National Live Stock Show being held. He stated that he had been given the program given by the Canadian Fair last winter, at which Dominion Live Stock Commissioner, John Bright, was present, and one or two other prominent men, he suggested the holding of a national live stock exhibition in Toronto on the grounds of the Canadian National Exhibition. The fact that meeting was held the following day in Toronto, called by members of the Toronto City Council, to make arrangements for the holding of such a show, was also noted.

The discussion of this point showed that those present were agreed that the dairy interests would be likely to lose more than they would gain were they to identify themselves to strongly with such a show. It was pointed out that they would probably have only two or three members on the board of officers, and that in consequence many of the dairy features that have done so much to make a success of the National Dairy Show in Chicago, would have to be sacrificed. The fact that two separate exhibitions are held in Chicago by the National Live Stock Show and the other the National Dairy Show, was mentioned. It was agreed that their success was due to the fact that they had been held separately.

After all these points had been considered, everyone present taking part freely in the discussion, a resolution was introduced and carried unanimously endorsing the proposal to hold a national dairy show, preferably on the grounds of the Canadian National Exhibition, Toronto, this show to represent all branches of the dairy industry, and to be controlled entirely by the dairy interests. The various dairymen's and dairy cattle breeders' associations will be advised to this effect, and their cooperation recommended in the holding of such an exhibition next year. If a national live stock show is held it was decided to cooperate with it, if found feasible, to the extent of holding the dairy exhibition at the same time, but that the latter should be conducted separately and controlled entirely by the dairymen.

In order that further information may be obtained it was decided to organize the committee. Mr. John McKee was appointed chairman, and Mr. H. B. Cowan secretary. A. Drummond was added to the committee. The committee may hold another meeting at the time of the Canadian National Exhibition, which will probably send representatives to the next National Dairy Show in Chicago to gather information concerning its management.

Issued  
Each Week

Vol. XXXII.

How Dealers Conceal  
ments,

EITHER quarter practically coolness, can be allayed. When gutta serena or other throughly smooth and colored to match the with hoof dressing, ination in some cases Enlargements or dis acute lameness is not opportunities for physician an enlargement, as blowing of any part of fellow, a hypodermic tity of some irritant cause a swelling, which careful observer may men are aware that the different conformations, is a fullness or roughness the joint is not necessary and while undesirable it is able. He is also aware alike in conformation, etion be undesirable and lameness it does not indicate if one hock be diseased made like it in appearance so liable to be detected.

SERUENUS MUCBL  
Then again in case of that has caused an atrophy the trader is aware to the skin covering is able to fill the hollow skin is a mesh-like tissue. If a hollow needle be forced into this tissue and it forces the meshes of this tissue into this course forces the the hollow.

In some cases irritant of air. These liquids can more permanent than absorbed in a short time. With air is not so permanent detected if the parts be passed over the parts is found to be abnormal like passing the hand over air, however, is preferred.

This is the last of a series of Dr. Reed for Farm and Dairy in which the prospective subscribers to the prospective articles should prove of necessity, must be borne from dealers. Other articles in Farm and Dairy for March 7 of this year.

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Each Week

# FARM AND DAIRY

&  
RURAL HOME

Only \$1.00  
a Year

Vol. XXXII.

FOR WEEK ENDING MAY 15, 1913

No. 20

## THE TRICKS OF HORSE TRADERS EXPOSED\*—No. 4

Dr. J. Hugo Reed, Guelph, Ont.

**How Dealers Conceal some of the Minor Unsoundnesses of Horses such as Quarter Crack, Bony Enlargements, Sweeney, etc. How Vicious Habits may be Overcome with Drugs. A Trick in B-Jing.**

**E**ITHER quarter crack or sand crack, while practically constituting permanent unsoundness, can be treated and the lameness allayed. When the cracks are filled with gutta-percha or other material which is made thoroughly smooth and even with the hoof, then colored to match the hoof and the whole dressed with hoof dressing, it requires a careful examination in some cases to detect this fraud.

Enlargements or diseases of the hocks, when acute lameness is not present, give the trader opportunities for plying his art. When there is an enlargement, as bone spavin, curb or a thickening of any part of one hock and not on its fellow, a hypodermic injection of a small quantity of some irritant into the sound hock will cause a swelling, which to any person except a careful observer may appear normal. Most horsemen are aware that the hocks may be of many different conformations and still be sound; that is, a fullness or roughness of mostly any part of the joint is not necessarily indicative of disease and while undesirable is not liable to cause trouble. He is also aware that if the hocks are alike in conformation, even though the conformation be undesirable and there be no symptoms of lameness it does not indicate unsoundness. Hence if one hock be diseased and the other can be made like it in appearance the disease is not nearly so liable to be detected.

### SHRUNKEN MUSCLES FILLED WITH AIR

Then again in case of sweeney or other disease that has caused an atrophy or shrinking of muscles the trader is aware that by forcing air underneath the skin covering the shrunken muscles he is able to fill the hollow. Just underneath the skin is a mesh-like tissue called areolar tissue. If a hollow needle be forced through the skin into this tissue and air forced through the needle the meshes of this tissue become filled with air, this of course forces the skin outwards and fills the hollow.

In some cases irritant liquids are used instead of air. These liquids cause a swelling which is more permanent than the air as it becomes absorbed in a short time. The filling of the parts with air is not so permanent and is more easily detected if the parts be handled. If the hand be passed over the parts filled with air the touch is found to be abnormal and a crackling sound like passing the hand over paper is produced. Air, however, is preferred to the irritant sub-

\*This is the last of a series of four articles written by Dr. Reed for Farm and Dairy. In the series all of the common unsoundnesses of horses and the ways in which these unsoundnesses may be concealed to defraud the prospective buyer have been dealt with. These articles should prove of great value to all who buy from dealers. Other articles of the series will be found in Farm and Dairy for Feb. 13, March 13 and March 27 of this year.

stances as it causes no irritation or after effects. While irritant substances are liable to cause extreme swelling and soreness and in many cases the formation of an abscess; hence if a deal be not effected with a horse so treated the probability of being able to dispose of the horse for some considerable time afterwards is very slight.

Means of temporarily checking undesirable or vicious habits are many. The use of an iron extension to the crupper so hidden in the hair of the tail that it cannot be noticed is often successfully used in disposing of a switcher; and probably one that will kick if he gets the line



**A Result of Using the Split Log Drag**

In Farm and Dairy last week W. J. Cox, Peterboro Co., using a split log drag. Here is the lane on which the drag is used, as photographed by an editor of Farm and Dairy.

under his tail. The introduction into the rectum of a small piece of ginger root will cause a tail lugger to elevate his tail. Horses that are kickers, shyers, too high lired and generally hard to handle can be doped by administering proper doses of opiates or narcotics. This of course renders the animal somewhat dull and stupid but usually checks his vices for the time. Successful doping of this kind requires a knowledge of the action of the drug used and the proper amount to administer, as while the proper dose causes the effect noted, smaller doses cause stimulation and probably an increased tendency to vice, while over doses cause excitement and delirium and probably make the animal practically unmanageable.

### HARNESSES MAY COVER DEFECTS

Local abnormalities such as warts, small tumors, fistula, ulcers, etc., may be hidden by heavy harness or a saddle. The actions of the trader are often sufficient to cause suspicion. If he is anxious to keep the horse in motion all the time it indicates that he probably is lame from bone spavin, which lameness is often not shown except after standing at rest for a variable length of time, or

he may be sore in the fore feet, but a little exercise removes the symptoms and so long as he is kept moving they are not apparent.

Spring halt is often very hard, and in slight cases, impossible to detect except by allowing the horse to stand for a few minutes and then backing him or turning him short to one side or the other. The lameness caused by corne can usually be removed for a time by poulticing for a few days and then getting the wall of the quarter rasped down so that there is no pressure upon the shoe of that part.

### WHEN LAME IN FRONT

A horse only slightly lame in front will often go sound if the head be checked high and he be driven smartly on a tight line; but if the check be let down and he be driven at a jog with a slack line and on a hard road the lameness becomes apparent.

Ridlings (animals with one or both testicles not apparent in the scrotum) are often disposed of as geldings. The only means of detecting this fraud is by the general appearance and actions of the animals. They have a masculine appearance, which reasonably well marked, is readily detected by a horseman but cannot be well described, and the actions are those of a stallion when in company of other horses.

Some traders have such knowledge of the actions of certain drugs, that if they can gain access to a horse that they want to own, they will administer a dose that will cause sickness or partial inability with the hope of discouraging the owner and making him willing to part with him easily. We will not discuss this at any length as the practice is seldom possible.

### Ideas Briefly Expressed

The side-delivery rake is one of the finest implements ever invented. It affords the quickest way of drying the hay we have ever tried. We have done away with the tedder altogether.—J. H. Grisdale.

Some of the advantages that we have seen in our tile drainage system are that our soil is now warmer, clover grows better than it did before, all crops show more vigorous growth, fertilizers seems to yield greater returns and the greatest benefit of all is that our heavy clay does not bake and crack the way it did at one time.—L. K. Shaw, Welland Co., Ont.

We should be very careful about cutting down all bad weeds every year. If these are attended to and cut at the right time, the farm should soon be cleared of all weeds. Burs are one of the worst weeds around, but if they were cut when they start to blossom and kept cut every year we should soon be done with them. The trouble very often is that one farmer cuts the weeds on his farm but his neighbor is careless and lets them grow. I have seen some farmers even on rented farms much more particular about cutting weeds and keeping their farm clean than farmers who live on their own farms.—R. P. Hill, Victoria Co., Ont.

### Supplementing Short Pastures

S. J. Foster, Prince Edward Co., Ont.

For tiding our dairy cows over the period of short pastures we have abandoned the soiling crop system and have adopted the clover and silo one instead. On our 175-acre farm we grow from 15 to 25 acres of canning crop. We aim to keep about 60 acres down to grass, 30 to 40 acres of new seeding and the balance in meadow that has been cut one year.

We have about 10 acres of permanent pasture that is in two different pieces. On these the cows run at nights throughout the season. For day pasture we take about 15 acres of new seeding one clover divided in two lots. We turn the cows on one of these as soon as there is a bite if the land is dry enough. This one will keep them going until about the middle of June. We then take them out of this first lot and let it grow for seed. By this time the other one will be commencing to head, and we then turn our cows into it. It will keep them going until about the middle of July.

#### THE BEST CROP OF ALL

We plan to have some well-cured ensilage in the bottom of our silo. This we then start to feed. With a little meal on ensilage it is the best soiler that we have ever tried. We generally have enough silage to keep the cows going until filling time. We find it good practice, however, to sow a small block of medium early corn just as soon as the ground is fit. This may look pretty yellow when it comes up, but if kept cultivated it will come on and be fairly well matured by the time the ensilage is gone. Of course, if we had no silo, we would certainly sow soiling crops, such as cow peas, oats or vetches, at different times on small plots to keep up a continuous growth of good food.

#### THE SILO A NECESSITY

The time has come when the man engaged in dairying to any degree cannot do without the silo. We think that where corn can be grown at all, the silo is fast taking the place of the soiling system, because it is always ready to feed in any kind of weather. It also saves time and labor at the busy season of the year, and this is a big item since the highest cost and scarcity of farm help is one of the biggest problems facing the farmers of Canada to-day.

The silo is no longer an experiment. If one puts good, well matured corn into a properly constructed silo at the proper season, one will always have good feed at any time of the year. I would strongly urge those who have no silo, to build one this season and be prepared for the year following.

### Six Years of Silo Prosperity

M. J. Casselman, Dundas Co., Ont.

Some six years ago I became interested in the silo and immediately had one built. Result: During the last six years, I have had less trouble in handling my feed, brought my cows through the winter in better shape, and made more money than in any other like period of time during the 40 odd years that I have handled my own farm.

My silo is made of two-inch scantling, blocked and lined with tongued and grooved material. I have fed ensilage to milch cows and young cattle, and can say that the silo is a boon to the man who winter dairies, as it is to him who wishes to bring his cattle, as it is not milked, through the winter in the best of shape.

When using a silo there is very little expense incurred. The greatest expense is in the filling,

which, with the corn cutters of the present day, is a very small item. I believe the silo affords the most economical method of storing corn, as when it is once in there is not the usual drag that goes with the other ways of storing corn.

COWS EAT LITTLE HAY

The cows will take one good feed a day, and

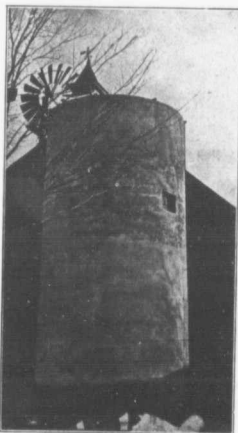


There is a Place for this Tool on Every Farm

Cheap in first cost, more efficient in its work than the large horse seeder, and fairly rapid is the small hand seeder such as the one here seen. There are few farms on which a seeder of the kind would not pay for itself in two years at the outside, and on most farms the saving of labor and the more efficient work done would return to its owner the cost in one year. Market gardeners all recommend this tool. So do general farmers who have tried it, and hence know whereof they speak.

will eat very little hay. Corn fodder has a very strong percentage of carbohydrates, and by feeding a small quantity of grain, protein and fat, two of the essentials to the milch cow are easily produced. There is one drawback to the silo in our district; and that is the trouble in getting corn ripe enough to make good ensilage.

I would advise every farmer, if he wishes to be



Where Returns are Quick and Sure

For many years Mr. S. A. Northcott, Ontario Co., Ont. has been feeding ensilage. So much did he appreciate the feed that about a year ago he erected a second silo, the cement one here illustrated. He considers the silo investment most profitable.

—Ont. courtesy Canada Cement Company.

successful, more especially in winter dairying, to see that before another winter comes, he will have a silo in which to store his corn. It is a pleasure for me to recommend the silo.

Get corn seed on the cob and grow according to the sample.—J. H. Grisdale.

### The Newly-Born Foal

By "Jockey Bill"

Feeding colts is a skilled art. The feeding of almost any other class of farm stock is easy in comparison. When I am feeding the pigs or apportioning the ration for beef cattle, I know just exactly what I am working for,—increased weight at the least possible cost a pound. Feeding the dairy calf is a little more complex. Here we have to feed so as to develop the milking functions, and mere gain in weight does not indicate necessarily the best feeder. When we come to the colt, however, we have the most complex problem of all. Here quality and temperament count for more than size, and are harder to get. Bad feeding may predispose to diseases unknown to other classes of farm stock, but such as would render the colt useless. Under feeding, I believe, will do more permanent injury to a colt than will to any other young thing on the farm. I will give a description of my methods of colt handling that have given me extra good results.

I lay great stress on the colt securing a good drink of colostrum or the first milk of the dam, as it possesses purgative properties. I lay great stress on the colt securing a good drink of colostrum or the first milk of the dam, as it possesses purgative properties. I lay great stress on the colt securing a good drink of colostrum or the first milk of the dam, as it possesses purgative properties.

When the dam has been hard worked before foaling, I always watch carefully to see that sufficient nourishment is supplied the foal. If I see any indications of the youngster being hungry, the mare is provided with feed that will stimulate milk flow. I have found nothing to equal good pasture grass in this connection, but if the grass is lacking would recommend oats, rolled barley, or wheat bran, with an equal weight of corn or corn meal. The oats and bran are the feeds I prefer at this time. On the other hand, I have frequently had mares providing too much nourishment, and the indigestion resulting often terminates in diarrhoea. My treatment in this case is to restrict the food of the dam and thus decrease the milk flow.

While I like to have the foals come on pasture because the surroundings are there absolutely clean and sanitary, I believe in confining the mare for a few days after foaling, feeding her good clover hay and the grain feeds already mentioned, but not feeding too much. At the end of a week I would turn both mare and foal on pasture, always keeping an eye on the foal to note thrift and progress to check the first appearance of ailment. The most common ailment with which I have to deal is diarrhoea, brought on by over-feeding or exposure to inclement weather. Parched rice, rye meal gruel and boiled milk, I find are all excellent correctives. Constipation is also a common ailment, and I relieve this trouble with castor oil, and at all times I find that lessening the amount of food given is the best aid to nature in enabling either mare or foal to get back to a normal condition.

When the colt gets to be about two months old, I start supplementary feeding, but of this I will write more fully later. I would just make one point. The older countries of Europe as a general rule, have us beaten to a frazzle when it comes to raising great horses. In all cases they believe in feeding the young foals grain in addition to their regular grass rations. This feeding I believe largely accounts for the superiority of the horses of European countries.

### A Legal

H. C.

"What beautiful is spending those along its streets city gentleman work last summer.

Who would attribute the value of farm home? break, fine trees home and increase here and unattractive made pleasant a few trees?

Our forefathers debted for the tree to-day, are entitled have left us a legacy of beauty is

### Common

R. H. Hard

Having heard being killed out advise any one with alfalfa, to still years' experience and shoulders above grow, and I can Alfalfa will stay in to 10 years and previous season, after, perhaps will leave the soil seeded. I cut 17 years, and it is in Alfalfa, like all other grass, poor weak and difficult to over is very important to near the surface as ally. A heavy clay will all surface water alfalfa without being to clean the land to grass before seeding stand is procured it the ground so many if there is any bluish quick in the land, it ally but surely grow out in spots.

A GOOD SUBSTITUTION It is doubtful if he made a real success deep subsoils. It is deep feeder that is nothing good to feed the top the crop is poor in proportion. Having guarded with the former hindrance the greatest importance have seed from more climes or from acclimated I believe more of them with alfalfa are due than to any other class new beginners with which there should be a number. It would say: If you have a plot thoroughly clean of grass from 15 to 20 lbs. of pecks of barley. If the be better to summer middle of July; then sower over it in Sept after cutting. Be sure grown when. If sweet colt.

**A Legacy from Our Fathers**

H. C. Blair, Picton Co., N. S.

"What beautiful trees you have. Many a city is spending thousands of dollars to have such trees along its streets." These were the words of a city gentleman who paid us a visit on our farm last summer.

Who would attempt to put down in dollars and cents the value of a fine grove of trees around the farm home? Aside from their value as a wind-break, fine trees add to the attractiveness of the home and increase the joy of living. How many bare and unattractive country homes would be made pleasant and inviting by the presence of a few trees?

Our forefathers, to whose foresight we are indebted for the trees that grace many of our farms to-day, are entitled to our lasting gratitude. They have left us a legacy of which can be said, "A thing of beauty is a joy forever."

**Common Enemies of Alfalfa**

R. H. Harding, Middlesex Co., Ont.

Having heard several reports about alfalfa fields being killed out in spots, I feel constrained to advise any one who is perhaps about discouraged with alfalfa, to stick to it. I have had several years' experience with alfalfa. I consider it head and shoulders above any other crop that I ever grow, and I can grow good crops of anything. Alfalfa will stay in the land with success from six to 10 years and produce three good cuttings each season, after, perhaps, the first season or two, and will leave the soil richer than when it was first seeded. I cut 17 good crops off one field in six years, and it is in fairly good form yet.

Alfalfa, like all other good things, has its enemies. Some of these are, briefly, water, blue grass, poor weak subsoils and, perhaps the greatest difficulty to overcome, unacclimated seed. It is very important that water does not lie on or near the surface as alfalfa will surely drown easily. A heavy clay field, sloping sufficiently to run all surface water away easily, will do very well for alfalfa without being tilled. It is very important to clean the land thoroughly of blue or twitch grass before seeding to alfalfa. If a successful stand is procured it remains in the ground so many years that if there is any blue grass or quack in the land, it will gradually but surely crowd the alfalfa out in spots.

**A GOOD SUBSOIL NECESSARY**

It is doubtful if alfalfa can be made a real success on poor weak subsoils. It being such a deep feeder that if there is nothing good to feed upon below the top the crop is liable to be poor in proportion.

Having guarded well against the former hindrances it is of the greatest importance that we have seed from more northern climes or from acclimated plants. I believe more of the failures with alfalfa are due to this than to any other cause. To new beginners with alfalfa, of which there should be a large number, I would say:

If you have a plot of ground thoroughly clean of grass, sow from 15 to 20 lbs. seed along with about five pecks of barley. If the plot is not clean it would be better to summer fallow it until about the middle of July; then sow seed alone and run the mower over it in September. The cuttings will act as a mulch, and the plants will stool better after cutting. Be sure you get northern or home grown seed. If sweet clover is not natural in your

soil, send to one of the Agricultural Colleges and get some nitro-culture and treat the seed before sowing. This treatment will take only a few minutes, and will well repay you. After you have the alfalfa well established cut your first cutting



**For the Good, Old Fashioned Way**

about June 15th, and keep an acre or so of the second cutting for seed. You will then have the greatest alfalfa difficulty surmounted; viz., home grown seed thoroughly acclimated.

Some people believe that soil from an old alfalfa field affords a more effectual manner of



**A Style of Farming that is Unpretentious but Profitable**

There is something impressive about the dairy farm with its broad fields and its commodious buildings. Beside it the boyard covering a quarter of an acre or so, does not "look up to much." The well known beekeeper, Hugh Orr of Elgin Co., Ont., who may be here seen as he buses himself among his money-makers, would probably prefer the quarter acre farm even if it is unpretentious. Perhaps too, he would make the quarter acre return as good profit in the season as most 100 acre dairy farms

inculcating a new field than does the laboratory culture that we prepare here at Guelph. There is no reason why this should be. We have found all the way from 100 to 10,000 bacteria on each seed treated by our culture. Surely this number of bacteria should be enough to ensure thorough inoculation.—Prof. F. S. Edwards, O. A. C., Guelph.

**Loss in Early Pasturing**

L. K. Shaw, Welland Co., Ont.

Just as soon as the pastures begin to look nice and green, there is a temptation to turn the cattle onto them. This temptation is particularly strong when feed happens to be scarce. Feed is fairly plentiful this spring, but nevertheless there are always a large number of farmers who, for one cause or another, lose fully half the value of their pasture through turning the stock on too soon. We never allow the stock on our pastures before the 24th of May or first of June, and we believe we gain thereby.

In the first place, the grass itself is of little value for food so early in the season. A chemical analysis would show that the early spring grasses are largely water, and no matter how active the milk cow might be, she could not possibly get enough of this watery stuff to supply her with the nourishment that she needs for body support and to fill the milk pail. If she does fill the milk pail it is a sure indication that she is robbing her own body. I have talked with many farmers who have been disappointed to find that their milk cows, instead of fleshing up, have been growing steadily thinner after being turned to pasture. These farmers were expecting their cows to live on water.

In the second place, it is well to remember when deciding what time to turn cows to pasture, that all of the food that goes to make the plant tissue is manufactured in the leaves. If these are cropped off early in the season and kept short, the plant has no opportunity to manufacture the food needed for further growth. Hence the growth is stunted all the season and the pastures "don't do well." It is absolutely essential to give the pasture a chance to make plant food early in the season, and this cannot be done when the cows are running on it. Unless one has unlimited pasturage it is invariably a mistake to turn the cattle out early.

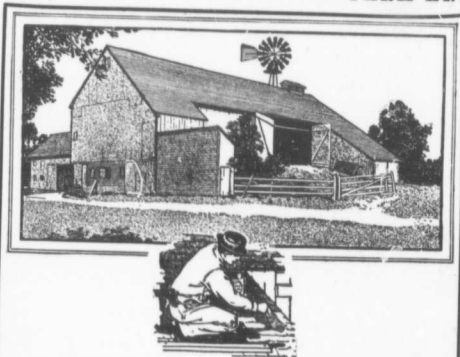
**The Wherefore of Underdrainage**

"Experience," Elgin Co., Ont.

Underdrains that carried away water and at the same time caused crops to grow better in dry weather, were always a sort of joke in our community. We could not appreciate how these two functions could be performed by one system of drains. It was easy to see that we would get our seed in the ground earlier through the drains carrying away the surplus water. But why did the crops grow better in dry weather? We could see that they did. Our fields testified to that. Since then we have studied the subject a little more and these apparently contradictory functions of tile drains have resolved themselves into something that appears natural and right.

One of the effects of tile drains is to make the soil above the drains more porous. A porous soil will hold more moisture than a compact soil without making the soil appear any wetter; about 17 per cent more, so I have read in a bulletin issued by Prof. W. H. Day. This in itself is enough to explain why crops grow better on drained soil in dry weather. Before our fields were drained the water stood very close to the surface during seeding time. During the first week's of growth the roots of the crops would reach this free water and then stop growing. Consequently,

(Continued on page 11)



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## FARM MANAGEMENT

### The Culture of Alfalfa

Prof. C. A. Zavitz, O.A.C., Guelph

Many of the soils of Ontario which have not grown alfalfa previously do not contain the alfalfa bacteria in the soil. It is wise to introduce this bacteria either with the seed which has been inoculated, or with the soil obtained from a field on which alfalfa has been grown successfully, and in which there has been an abundant development of the nodules on the roots of the alfalfa. If the proper bacteria are not present the alfalfa must secure its nitrogen from the soil. With the proper development of the nodules on the roots of alfalfa the plants have the power of making use of the free nitrogen of the atmosphere as well as the nitrogen which is already in the soil. As the seed can be so easily and so cheaply treated it is usually wise to treat the seed unless it is known that there is an abundance of the proper bacteria in the soil. For further information regarding the inoculation of alfalfa seed inquiries should be made to Professor S. F. Edwards, Bacteriological Department, Agricultural College, Guelph.

It is also important to sow alfalfa under average conditions in Ontario the alfalfa seed should be sown at the rate of about 20 pounds of seed an acre, and the seeding may take place at any time of three different times of the year as follows:

1. Alfalfa seed may frequently be sown in winter wheat in the early spring either on the old snow or on fresh snow of one or two inches, and no harrowing or cultivation is necessary. When this method is followed the soil should be free of grass and weeds, and the wheat should not be very thick on the land.

2. On a suitable seed bed, and as soon as the land is sufficiently dry in the spring, alfalfa seed may be sown from the grass seed box placed in front of the grain drill. About one bushel of barley or spring wheat per acre sown from the tubes of the drill makes a very good nurse crop. After the seed is sown the land should be harrowed lightly. This method usually gives very good results providing the land is in a good state of cultivation and is in a clean condition.

3. Alfalfa may usually be sown alone to good advantage in the month of July on a summer fallow, providing there is sufficient moisture for good germination. This is a good system to follow providing the land produced a crop of grain or was a sod in the year previous to the sowing of the alfalfa seed.

It is nearly always wise to leave the alfalfa undisturbed the first autumn. If there are weeds, however, that are likely to go to seed or if the crop is so heavy that there is danger of smothering in the winter a mowing machine can be run over the field so as to cut the tops of the plants, which could lie as a mulch on the field.

### USES OF THE CROP

The alfalfa should be cut just as it is starting to blossom, and great care should be exercised to cure the alfalfa so as to retain as many of the leaves as possible, and to protect the crop from rain. The exact method to be used depends largely upon the amount of crop and upon the conditions of the weather. The second crop in the one season may be used for hay or allowed to ripen for seed production. If the second crop is used for hay there is frequently a third crop which may be converted into hay, or in some instances used to excellent advantage for mixing with corn when filling the silo.

At the Ontario Agricultural College for the last 15 years we have obtained an average of three cuttings of alfalfa a year, with an average total yield of a little over 20 tons of green crop, or 4.5 tons of hay an acre per annum. The average for Ontario is usually about two tons of hay for the first crop, one ton per acre for the second crop, and from one-half to three-quarters of a ton per acre for the third crop. Where seed is produced from the second crop the yield usually varies from about one-half to seven bushels, the average being fully two bushels an acre.

If alfalfa is ever pastured it should be done with great caution as the pasturing frequently ruins the crop. On those farms of Ontario where alfalfa can be raised successfully it is undoubtedly one of the most important crops that can be grown.

### Land for Hoe Crops

I have a piece of land on which we put stable manure this winter. Also have the best for corn. Also for potatoes. I have a silo. What kind of corn would you advise me to sow? Would it be advisable to plow in the corn in every row? We would in the soil or drill it in.

We would plant the potatoes on the land that has been manured and the corn in the other soil. If manure is not too plentiful it would be well to manure the potatoes rather lightly in order to have some manure for the corn land. In lieu of manure we would grow the potatoes an application of commercial fertilizer, say, 400 lbs. sulphate of potash, 150 lbs. acid phosphate, and 100 lbs. nitrate of soda an acre. If possible, get the manure on the corn land before plowing.

After plowing, disc and roll the land alternately and cultivate till it is in 1 1/2 shape. In almost every case it is advisable to plant corn on the level. Mark the land off and sow rows 3 1/2 feet apart or in hills three feet apart. Early Leaming, White Cap Yellow dent, or Longiear are good varieties to grow in Ontario. By closing intermediate tubes of seed, grain drill it may be used in planting corn.

### Queries re Alfalfa

I am interested in sowing some alfalfa. If sown this July will it get up this year? Please give me information re guarding inoculating the seed. Where could I get a pure bred strain comb white horns cockerel?—G. J. P., Peterboro, Ont.

Alfalfa sown in July will give a good growth the same year, but it is advisable not to cut it as it leaves the plants unprotected for the winter. If the growth, however, is very rapid it may be cut, providing it is cut early enough to allow the plants to make new growth before winter sets in.

Land that raised a crop of corn or roots last year would best suit your purpose. Commence cultivation early this spring and summer fallow to keep down weeds and conserve moisture. Sow early in July without a nurse crop and use plenty of seed, 12 to 30 lbs. to the acre, depending on the condition of your soil. The material for using, can be procured from the Ontario Agricultural College, Guelph. Sow the seed while it is yet damp, as the bacteria become weakened if allowed to get too dry. For the same reason harrow the field immediately after sowing.

You will find in the Poultry Department of Farm and Dairy advertisements of reliable poultry men who have this kind of poultry. By writing them you should be able to obtain what you require.

The high headed horse can best be bridled by having a snap in the bit. Put the bridle over, then snap the bit in place.

THE article on the Fat Hog and Dairy cow honored my father to whom I have had to do with hogs and with hogs on hog, my father to whom I have had to do with hogs, or what hogs. Hence my fact may be of

I will first send you the 25 year ago to Mr. Currie. My time was a breeze said he remember one of which was over 700 lbs., and 800 lbs. These than the ones M of keeping to one of helping to be times, ranging in year and a half 400 lbs. and over pigs, the old fat hog remember long enough to corn through t



Comp

Duro-Jerseys, Bu Whites and Suff WATS NOT

The raising and short fat types was fit to us we raised fall and after feed the winter we had fats in the spring and if they were some were poor run the wind. Some less than hogs, out to the pig pen composed of about and swamp. Here few peas they hunt for about six months with a good length, with the shorter fats was hunt, but their stam in healthy sh and early winter fe

We housed these fashioned pig pen a peas and water fo feeding. At the co three pounds a day they would weigh 1 lbs. When ready fo Christmas, they we 400 lbs. and when good pork for the

DON'T BATTERY

It would take a lon of this type to de for themselves as t today has done. Th Macdonald would a in Toronto be breakfast bacon, and with a large slab of fat. We always find by of a product will demand.

Is the old way of for the farmer? By re ments and from my

**THE BACON HOG UPHELD—EXPERIENCE WITH THE FAT HOG**

Geo. Laitheite, Huron Co., Ont.

**T**HE article, "Shall we go back to the Fat Hog?" written by Mr. MacDonald, appearing in Farm and Dairy of May 1st, should be honored with some comment. I have had years of experience with hogs of different breeds, and have marketed hundreds of bacon hogs, and have also helped my father to raise the old fashioned hog, or what are called the thick fats. Hence my opinion on the subject may be of some value.

I will first say something about the 25 year ago hogs. When talking to Mr. Curvin today, who at that time was a breeder of Berkshires, he said he remembered killing two hogs, one of which when dressed weighed over 700 lbs., and the other close to 800 lbs. These are a little larger than the ones Mr. MacDonald speaks of keeping to-day. I can remember helping to butcher hogs several times, ranging from one year to a year and a half old, and they dressed 400 lbs. and over. These were white pigs, the old fashioned Yorkshires. I can remember that their noses were long enough to reach the third row of corn through the fence. We raised

I believe that the older and larger the hog the more feed it takes to produce one pound of meat. I started to farm for myself about 18 years ago. My father gave me a sow with which to start, bred from a Yorkshire hog of Mr. Breatbourn's, and her dam chased a Yorkshire by Flatt. I then purpurs with good success as my stock increased, marketing over 100 a year, sometimes selling below five cents a pound. I had scales that would weigh twelve hogs and when feeding grain I had to know the returns, as I bought most of my feed. People asked me why I kept so many hogs, and I claimed that if there was a profit of one dollar in a hundred there would be a profit of \$100 in 100 hogs. In all my records of feeding hogs I never had a bunch that cost me five cents a pound at a weight of 300 lbs. I always try to have a field of clover to run them on in summer and add alfalfa clover in winter. I have a rack for my sows and they stand and eat like cattle.

**HAS TRIED FAT HOGS**

I can sympathize with Mr. MacDonald, however, in his ideas along the line of fat versus bacon hogs, as five years ago I conceived the same idea. I thought a smaller type of hog would be more profitable, so set to work to produce a new pig. I bred my best Yorkshire sow to a Berkshire pig. She had six sow pigs in the litter. I saved them all for sows, bought an improved Chester hog, and thought I had the ideal pig. They were as fat as health was concerned, but had not the capacity for taking the feed necessary, and thus it took longer to prepare them for my old breed, which I can buy from over 20 neighbors in this township. This speaks for itself, as dollars and cents are what the Canadian wants, and I am a Canadian.

The Tamworth hog gives good returns as a bacon hog. I had a bunch crossed with Berkshires, which gained weight at three and one-quarter cents a pound on clover. I do not like the Tamworth, however, on account of his color.

I was pleased to note what Mr. MacDonald said about the packers not paying by grade. If they did it would be no more than justice to their own business, and would also encourage the producers to produce No. 1 bacon hog. We have to consider the price hogs are to-day as there is a limited market for thick fat pork.

If we want to produce thick fats we can very easily do so with any breed of hog by feeding high in carbohydrates and fat and not allowing them to get exercise. With this method we will get the sloppy, soft pork of the fat type, but for the sake of the reputation our bacon is now winning in the markets, it behoves us as breeders to look after our own interests.

Regularity is as good as several pounds of grain a day in holding the cows to their work. Have a regular hour for milking, washing, watering, and cleaning the stables.

The curate of a grand and fashionable church was surprised to teach the significance of white to a Sunday school class. "Owe to me," said he, "a bride invariably desires to be clothed in white at her marriage?" As no one answered he explained,

"White," said he, "stands for joy; and the wedding day is the most joyous occasion of a woman's life." "A small boy queried, 'Why do the men all wear black?'"



Competition

Duroc-Jerseys, Berkshires, Chester Whites and Suffolks

**WATS NOT PROFITABLE**

The raising and breeding of these short fat types was lacking in profit to us as we raised our pigs in the fall and after feeding them through the winter we had a bunch of thick fats in the spring, about 10 or 12, and if they were not off their legs they were poor runners and short in the wind. Some made better whistlers than singers. We turned them out to the hog pasture, which was composed of about 60 acres of bush and swamp. Here with the aid of a few peas they hunted for themselves for about six months. We found that the hog with a good nose and some length, was the best. The shorter fats were too lazy to hunt, but their starving ration put them in healthy shape for the fall and early winter feeding.

We housed these pigs in the old-fashioned pig pen and fed them on peas and water for two or three months. At the commencement of three pounds a day. When housed they would weigh from 175 to 250 lbs. When ready for market, about Christmas, they weighed from 300 to 450 lbs., and when dressed made good pork for the lumbering camps.

**DON'T SATISFY CONSUMERS**

It would take a long time for hogs of this type to develop a market for themselves as the bacon hog to-day has done. I wonder what Mr. MacDonald would say if when in a hotel in Toronto he were to ask for a breakfast bacon, and should be served with a large slab of the old thick fats. We always find that the quality of a product will bring its own demand.

Is the old way of feeding profitable to the farmer? By reports of experiments and from my own experience

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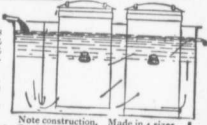


is a good business proposition any way they like to figure it out. The Meal is precisely what the name implies—a substitute for Cream or Whole Milk. You can veal up or raise just as good calves on Cream Substitute as at a cost which is trifling in comparison. You owe it to your bank account to find out all there is to know about Caldwell's Cream Substitute Calf Meal.

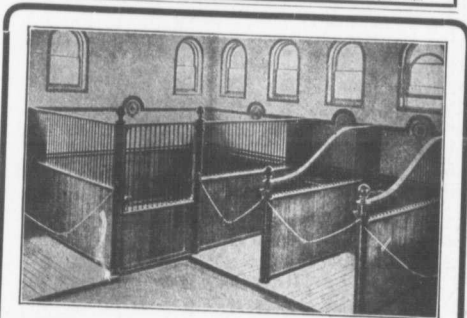
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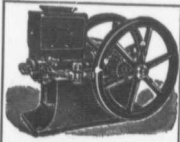
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## HORTICULTURE

### Hints on Planting Trees

W. T. Maccoun, C.E.F., Ottawa, Ont.

One of the best crops to precede an orchard is the rod crop. With roots on the land one year, the soil is in just the proper condition for trees the next spring. The moisture comes right to the surface and the roots are placed in moist soil. If the trees are grown on grass soil and the spring is dry as it often is, we will get a small growth the first year.

Our experience with planting trees in the fall has been variable. Sometimes they do well and other times they make poor growth. They get but little hold on the soil in the fall and then have to stand exposed to the dry cold winds for several months. By

necessary to go to a local nursery. Apple trees brought from a southern nursery if of a hardy variety will grow just as well in this northern climate as home grown trees.

Crab apple stocks grow better on a moist subsoil than ordinary stocks. We have had much better success on our moist soil since we started to use them.

### Garden Notes

Red cedar, Colorado blue spruce and Black Hill spruce are excellent evergreens for the yard or windbreak.

Window boxes should be prepared now if they are to be used this summer. Cannas, geraniums, nasturtiums, coleus, petunias, and the trailing vinci make excellent plants for this purpose.

Plantings of sweet corn may now be made frequently in succession. It is possible that the first few plantings may be injured by the frosts, but it is



### Making Interest on the Young Orchard Land

Did one have to let orchard land lie idle for six to 12 years until the trees came to a profitable bearing, there would be little orchard planting done. Hood crops, however, may be raised in the orchard and if they are properly fertilized will be an advantage to the young orchard through the cultivation given, and the profit on the hood crop will make the land profitable. Cooper Bros., Cariboo District, B. C. whose young orchard may be here seen, are making potatoes their interest paying crop.

spring they are dried out and do not do so well as those set in what I believe to be the proper season, the spring. If trees are delivered in the fall, they may be heeled in for the winter.

### DON'T PLANT TOO SHALLOW

Many trees are planted too shallow. The tender limbs are exposed to the air, the wood hardens and the sap being impeded there in its flow, there is a super-abundance of food at that point and suckers develop. At Ottawa we plant one inch deeper than in the nursery. If planted much deeper the bark is apt to rot.

Young trees do not need plant food and I think that the manure applied to the young orchard is wasted. If the ground is given good tillage, the plant food thereby made available will answer all requirements for the young trees. We do not trim the trees too closely when first set. We believe in giving the sap a chance to set.

Theoretically a one year old tree is best. Practically a two or three year old tree makes the better growth, and two years is the preferable age. The older a tree is when planted, the quicker it will come into bearing. The difficulty in planting three year old trees is that they are difficult to transplant and many die.

The larger a tree is before it comes into bearing the better the results will be afterwards. Trees stunted by poor cultivation can never be very profitable.

If I can get trees dug in the spring, I would prefer them. Trees dug in the fall are apt to be taken from the nursery row too early and they are not ripened properly. To get trees dug when you want them, it will be

worth the risk if even one planting comes on early.

Evergreens can be set out, if handled carefully, up to about the time they begin to bud. They must not be exposed to the wind or sun for over a minute, for if the resin sets in the roots, the plant might as well be thrown on the brush pile.

There is still time to make a good lawn. Forty pounds of blue grass, three pounds of white clover and three pounds of solid red top make a good lawn grass mixture. The white clover and red top grow quickly and are gradually crowded out by the blue grass, which makes a much better lawn. Be sure that the lawn is finely raked and the soil is in the very finest condition of tilth before sowing any seed.

**Plant Lice in Spring.**—Some trees and shrubs are loaded every season with plant lice. On those affected last year one is likely to find now small, black, shiny eggs at the ends of the twigs. These can be seen on fruit and other trees, various ornamental shrubs, and particularly on the buckthorn. As soon as the tender leaves begin to unfold on this shrub the eggs hatch, and the leaves shortly become loaded with lice. Why not, therefore, trim hedges and shrubs now, and burn the trimmings, brush as well as prunings of fruit trees? It is very well known that plant lice increase at a tremendous rate when once started, therefore, each egg destroyed now means the death of hundreds of lice, and the consequent lessening of the work of spraying later.—F. L. Washburn, Entomologist.

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**\$5000.00** buys 3 1/2-acre containing 10 rooms, 2 bedrooms, all modern improvements, 6 minutes from P.O., rented at present. *Will exchange for other property if suitable.*

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Write for other attractive offerings. I'll pay you tomorrow when you want to sell or buy. For full particulars apply **J. T. O'CONNELL & CO.** 136 Hunter St., Peterboro Open Evenings. Phone 376

**POULTRY YARD**

**The Buttermaker's Poultry**  
P. von Maren, Hinchley, Minn.

Three years ago when I started to work in a whole milk creamery near Merrill, Wis. I had surplus time in the afternoons, so I made up my mind to keep some chickens. I went over to my neighbors and bought ten hens and one rooster, all sizes and all colors, and put them in my barn. This was in the spring, in March I think, and of course I got from six to seven eggs a day as all hens will lay in the spring months if they are any chickens at all). But the eggs were just like the hens, all sizes and colors, some white and others brown. However, I sold the hens with some of the eggs and hatched fifty chicks. All the cockerels from the hatch I sold in the fall for market price, which I think was 10 cents a pound.

Among the ten hens I had, there were two or three S. C. White Leghorns, and I noticed that they laid two eggs to the others one, and the eggs were bigger at that. So I decided to keep only that kind, and I sold all my old hens except the Leghorns. Of course, those I kept were not full-blooded, so I bought a full-blooded cock bird for \$8. I got hold of some poultry books and subscribed to a poultry paper.

**Feed Growing Chicks Right**

They must be furnished with the right kind of material if they are to make satisfactory growth of muscle, bone and feather. Feed the best and turn them into cash before prices fall. The following are completely developed and ready to fill the pens with full size winter eggs.

**Pratts' Baby Chick Food**  
contains just the necessary ingredients to give them during the first three weeks the best possible start, at a cost of 10 per chick. It is easy and cheap. *25c. 50c. \$1.00* in 10, 25 and 50 lb. tins.

**Pratts' Poultry Regulator**  
In the ration to aid digestion and make the greatest gain for every pound of feed consumed. *50c. 1.00. 2.00. 5.00* in 10, 25 and 50 lb. tins.

DEF. warrants are sold by dealers everywhere, or **PRATT FOOD CO. OF CANADA, LTD.** TORONTO, ONT.

160-page Poultry Book, 10c by mail.



**CASH**

**For Baby Chicks and Eggs for Setting**

Have you stock you wish to dispose of? Then why not let those who are interested know of your proposition. Farm and Dairy readers are poultry keepers to the extent of 98 1/2 %. Could you wish to reach a more attractive field?

For profitable sales and plenty of them one must reach out away and beyond his own neighbors. The best way is to advertise.

We make the cost very low to you even for small ads. Rates are order-per inch each insertion, 18 cents lines, \$1.00. This is the same rate we give our largest patrons using big space in each issue.

Classified rate only 1/2 per word, each initial, sign, figure, etc., to count as one word. Cash must always accompany order strictly in advance for classified ads.

Fit up your ad, now while you are thinking about it. You may as well sell your stock and eggs for hatching at low prices!

Farm and Dairy will take your message out to over 16,000 possible buyers.

**Farm and Dairy Advertising Dept.** Peterboro, Ont.

**A SCIENTIFIC BREEDER**

That winter I had eggs all winter. I learned in the poultry paper to pick out the best layers and use eggs from them for setting. When spring came I picked out 14 hens and put them in a separate coop with the cock bird, and used only the eggs from these hens for hatching. That summer I hatched 110 small chicks, of which 48 were pullets and the rest cockerels, and some especially fine ones among them.

My first pullet started to lay in November when six months old, and I had eggs and plenty of them all winter. The eggs I didn't use myself I took to town. When hatching season came around I bought an incubator, also two more cock birds, shipped in from Minnesota, paying \$15 apiece for them. I think I hatched about 300 chicks that season, besides selling some eggs for hatching purposes to people in town at 75 cents for 15 eggs.

I also sold several day old chicks at 30 cents apiece, and when I balanced my book at the end of the year, I was \$63 to the good, after paying for all my feed, besides buying a setting of eggs (15) from New York for \$15, a dollar an egg. Moreover, I had 120 hens and pullets left over for this year. After I moved here to Hinchley in February I built an up-to-date barn for my hens. Now after the three years improving my stock I have some very fine birds, not only in color and shape, but my two best hens started laying when the pullets were four months and three weeks old, and in the last five months—from the first of October 1912 to the first of March 1913—I have got an average of 105 eggs a hen.—Butter, Cheese and Egg Journal.

**18 LIVE HENS CENTS**

We shall pay this price per pound for good live hens delivered in Montreal. We handle dressed calves on commission. Try a shipment.

**Harris Abattoir Co., Limited, Montreal**

**INCUBATORS AND BROODERS COMBINED**

The Philo System. This machine gets the largest percentage of the hatch of any machine on the market to-day. Free catalogue. Address:

**THE CYCLE HATCHER CO.** TORONTO, 418 SYMINGTON AVENUE. G. M. Collins, Canadian Manager. Dept. 2

**EGGS FROM PARTRIDGE ROCKS**

Barred Rocks, Blue Comb Brown Leghorns and Single Comb Reds. Beautiful brood-laying matings, \$1.00 per 15.

**REUBEN BATHO, - KENILWORTH, ONT.**



**An Unsolicited Testimonial**

A CLEAR-EYED young farmer stepped up to a manure spreader demonstrator at the 1912 Chicago Live Stock Exposition and, pointing to one of the spreaders in the exhibit said:

"I own one of those machines. It is the strongest spreader I ever had on my farm, and I've had a number of different machines. I honestly believe that if I filled that spreader with soft coal it would spread the stuff for me. I wouldn't trade it for any spreader I ever owned or saw."

This unsolicited recommendation from a man who had used an I H C spreader, and therefore knew what it would do, carried weight with his hearers. They might have doubted whether an I H C manure spreader would spread soft coal—but there was no doubt in their minds that an I H C spreader had spread manure to this man's entire satisfaction. This is a typical case showing what users think about

**Baby Chicks**

Order your baby chicks now from our splendid laying strain of **SINGLE COMB WHITE LEG-HORNS**

**Utility Poultry Farm**

T. G. DeLAMEBE, Prop. STRATFORD - ONT

**Stock and Poultry Feeds**

Write For Prices **CRAMPSEY & KELLY** Toronto, Ont.

**Getting Results.**—Letters are coming from all through Canada with inquiries for stock and eggs from Wyandottes, showing us that your paper covers possible buyers from the islands of the Atlantic to the islands of the Pacific.—McLeod Bros., Stony Creek, Ont.

**I H C Manure Spreaders**

**Corn King and Cloverleaf**

I H C manure spreaders are made in many sizes, running from small, narrow machines for orchard and vineyard spreading to endless or reverse aprons as you prefer.

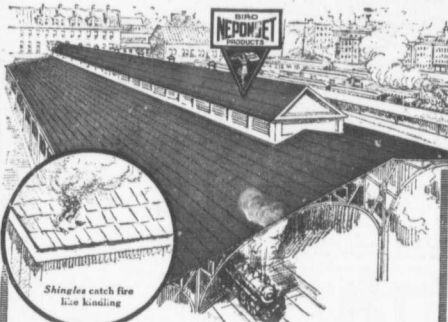
The rear axle is placed well under the box, where it carries over 70 per cent of the load, insuring plenty of tractive power at all times. Beaters are of large diameter to prevent winding. The teeth that cut and pulverize the manure are square and chisel pointed. The apron drive controls the load, insuring even spreading whether the machine rear axle differential, enabling them to spread evenly when turning corners.

The local agents handling these machines will show you all their good points, and will help you decide on the one that will do your work best. Get literature and full information from them, or, write the nearest branch house.

**International Harvester Company of Canada, Ltd**  
BRANCH HOUSES  
At Brandon, Calgary, Edmonton, Estevan, Hamilton, Lethbridge, London, Montreal, St. Catharines, Ottawa, Quebec, Regina, Saskatoon, St. John, Winnipeg, Yorkton.

"The Danish egg man sells to the English wholesaler. The keen business man can do business cheaper than can the cooperative society."





## This Roofing Used Twice!

"Most roofs have but "one life." This roof pictured above had "two lives." When the Old Wells Street Station of the Chicago and Northwestern R. R. in Chicago was torn down, its roof of NEPONSSET Paroid, after fighting smoke, burning cinders and storm for eight years, was rolled up and used to roof other stations.

It's still giving perfect service. NEPONSSET Paroid Roofing is constantly doing this—giving better, longer and safer service than you would think it possible for any roofing to give.

"Covered with NEPONSSET Paroid" means that you have protected your stock, implements, grain, etc., with the safest, sanest and surest product which the development of prepared roofing affords. It's a quality product. Anyone can lay it.

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## Waterproof Building Products

### Roofings

NEPONSSET roofings are a fire protection, fire-proof and long lived. Anterior can lay them NEPONSSET Paroid Roofing is for general use. NEPONSSET Paroid Roofing is an ornamental roofing for dwellings, attractive outside.

Are you going to build and waterproof. Smaller samples, free booklet and name of nearest NEPONSSET dealer.

**BIRD & SON**  
17-W. BIRD & SON

### Building Papers

If NEPONSSET Waterproof Building Papers are built into walls and floors, the building will be warmer, will cost less to heat and will last years longer. Recommended by architects, engineers and building owners everywhere.

Write for valuable information about modern water-proofing samples, free booklet and name of nearest NEPONSSET dealer.

822 Heintzman Building, Hamilton, Ont.  
Montreal St. John, N. B. Winnipeg Vancouver

### Wall Board

NEPONSSET Wall Board is a scientific product which covers the place of lath and plaster; comes in sheets 12 inches wide. Remember, it is the only wall board with inter-locked surfaces that requires no further decoration. Always use caps put it up.

Write for valuable information about modern water-proofing samples, free booklet and name of nearest NEPONSSET dealer.

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## Gates for Poultry Runs

The "runs" in connection with the two new buildings erected by the Poultry Department of the Ontario Agricultural College, illustrated here-with, are highly interesting from the constructional point of view. There are 33 runs in all, each being 47 feet long by six feet six inches wide.

The solution of the problem of fencing these runs was provided by a clever combining of steel gates, each united rigidly to its fellow by a simple bolt and nut device. No ground posts are required, and by the loosening of a few nuts—two to each gate—the whole equipment can be easily removed so that the ground can be cleaned or plowed right up to the buildings. The gates are five feet three inches high, a notable feature being the top bar, a steel pipe placed six inches below the top wire. The idea behind this construction is that a hen in attempting to alight on the

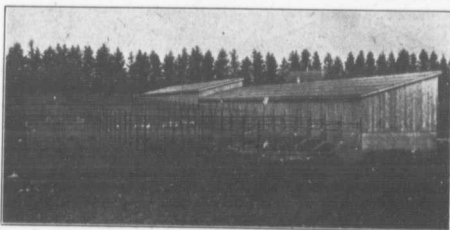
endeavor to develop laying strains of the highest efficiency. The general plan of the new runs was obtained by Professor Graham during his recent visit to Great Britain, from the recent farms so common there, and the practical working out of the idea was entrusted to The Canadian Gate Company of Guelph. "The order will go to the man who gives me the best idea," said Professor Graham to competitors for the order.

## Bedding for Live Stock

By William Gallows.

Whenever I see a good herd of cattle, horses, or hogs, a fine flock of sheep or a large, sprightly flock of poultry, I know just what sort of a caretaker is behind them. So much is written about feeding and breeding that bedding is overlooked, when it is just as important as feeding.

If a horse must rest in a wet, filthy



## An Unique Method of Constructing Poultry Runs

One hundred and fifteen steel gates have been used in building the runs in connection with the new O. C. poultry houses here seen. A description of this method of poultry run construction will be found in an article adjoining.

top bar is thrust back into the pen by the top wire. Side gates are 15 feet six inches wide, three to a run. End gates are 13 feet wide. Thus there are in all 115 gates.

The poultry houses to which these runs are attached are those where the trap-netting is done in connection with the experiments being conducted by Professor W. R. Graham in his

stall, he will go into the morning's work feeling sore and tired, skin and hair dirty and not feel good all day. If he is a celtic such treatment retards his perfect development. A roomy stall, bedded in straw will do him as much good as a feed of grain, whether he is growing or working.

Look in at the barn of the successful dairymen. You'll find well bedded stalls for the cows that are due to freshen, plenty of dry, deep litter or straw under the cows in the stanchions and the young things contented and frisky in pens bedded with two feet of straw. The stable of the race-horse owner is bedded deep always! Why? Because he knows it keeps the animal fresh, his muscles free and pliable and his skin loose and cool.

Brood sows cannot do their best in coming through the winter without a dry bed of straw. She does not need a heavy bedding at farrowing time, but her pen must be dry and clean. Growing pigs will make better gains on their feed when well bedded at night, though I do not mean by this that they should be housed up tightly. And when it comes to the profitable hen, you'll find her in the flock of the poultryman who keeps his houses clean and sanitary and the floors dry and bedded with straw from 15 to 20 inches deep. She has something in which to scratch for her feed and this induces her to lay.

We enjoy the Household Department and the Horticultural and Dairy articles. We find the Upward Look excellent reading. Farm and Dairy is the first paper that is read when the mail comes.—C. Tennant, Lanark Co., Ont.

I was advised last year to take Farm and Dairy, and have found it such a good paper for a farmer that I would not now without it. S. W. Armistead, Prince Edward Co., Ont.

## Feed for

How should I result with grain and oats, clover, alfalfa, etc. I want to give good feed to my cows.

The feeds give me the best results. I have a mixture of 500 barley, 100 lbs. of buckwheat and each four pounds reduced by the cost comes in the amount gradually decreased found advisable amount say a pound a half a day, even most plentiful supply or grass.

## Feed for H

What is the proper time a pure-bred maturity—B. C. Has

Whole milk should be given to calves at least one week. I need a change in whole milk to skim brought about in proportion of a skim each day of 100 to 100 degrees F. no less. To replace been removed from well as to furnish it is well to add some ration. This jelly in small quantities increased. Begin with a crease until about a feed night and morning months old calf.

To prepare the jelly, steep, one pound of water almost boiling, paste results. Another preparation is to take ground flax in a quantity allow to simmer just point until a thick jelly should be kept cool fed.

Another good jelly the milk is prepared part pure ground flax finely-ground corn parts finely-ground and the whole well mixed and allow to stand for an hour. Begin with one per day for the calf old milk for the and no solids. Increase as the calf grows to exceed a half-pound.

In addition to the flax the calf meal just described bran and whole feed. Start with very little. Some clean, sweet will be a valuable addition to a very early diet. They may be used with is not to be had. Cut to what as from whole milk (see method out) The flax seed jelly, used just as with skim

## GET OUR SCALE BOOKLET FREE

# MAKE THE FARM SHOW BIGGER PROFITS

Unless you weigh your live stock, grain, roots, cheese etc., before they leave the farm, you stand to lose money. You are at the mercy of the bad scale, the poor reckoner and the "Smart Alec." You have earned a profit which you do not get.

Farming is a business that cannot stand such a handicap. You cannot help the weather sometimes cutting into your profits. You cannot always prevent disease to cattle or crops.

But you CAN see that the leakage of profits is stopped by installing a WILSON Scale.

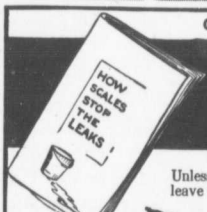
A scale on the farm safeguards your end of the deal and gives you confidence in every transaction.

Then, too, when you own a Wilson Scale you can note the progress of your live stock, and sell at the right time.

You can see if your Dairy cows are each paying a profit—weigh the milk.

Every day this Scale will show you new ways to add to your profits.

**C WILSON & SON'S SCALES**  
93 ESPLANADE TORONTO



No. 66—Farmer's Platform Scale, 2000 lbs. capacity.



No. 236—With Cattle Rack, Capacity 4000 lbs.



**The Feeders' Corner**

The Feeders' Corner is for the use of our subscribers. Any interested are invited to ask questions, or send for literature. All questions will receive prompt attention.

**Feed for Grade Cows**

How should I feed grade cows for best results with ground barley, timothy and oats, clover hay and a little mill stuff?—E. H. G., Prince Edward Co., Ont.

The feeds given are such as are likely to give the best results in the production of milk, provided they are fed judiciously. "A little mill stuff" is rather an indefinite term; but provided it could be interpreted to mean bran, then I would suggest the following as a method likely to give good results—in June, there will, of course, be green forage to add: Clover hay, night and morning, as much as the cattle need; then about one pound of a mixture of 500 lbs. bran, 100 lbs. barley, 100 lbs. buckwheat, or 200 lbs. buckwheat and 300 lbs. oats for each four pounds of milk being produced by the cow. When green feed comes in the amount of meal may be gradually decreased; but it will be found advisable to feed a small amount, say a pound or a pound and a half a day, even during the time of most plentiful supply of green forage or grass.

**Feed for Holstein Calf**

What is the proper feed required to raise a pure-bred Holstein bull calf to maturity?—E. C. Hastings Co., Ont.

Whole milk should be fed for at least one week. During the next week a change may be made from whole milk to skim milk. This should be brought about gradually, substituting each day a regularly-increasing proportion of skim milk for the same amount of whole milk withdrawn. The skim milk should be fed warm, from 90 to 100 degrees Fahr., no more and no less. To replace the fat that has been removed from the skim milk, as well as to furnish additional protein, it is well to add some flax seed jelly to the ration. This jelly should be added in small quantities at first and slowly increased. Begin with a dessert spoonful in each portion and gradually increase until about a cupful is being fed night and morning to the three months old calf.

To prepare the jelly, boil, or rather steep, one pound of whole flaxseed in water almost boiling, until a thick paste results. Another method of preparation is to take half a cup of ground flax in a quart of water and allow to simmer just below the boiling point until a thick jelly is formed. It should be kept cool and sweet until fed.

Another good jelly for mixing with the milk is prepared as follows: One part pure ground flax seed, two parts finely-ground corn meal sifted, two parts finely-ground oatmeal, sifted, and the whole well mixed; then boil and allow to stand for 12 hours covered. Begin with one-eighth pound per day for the calf when a month old; new milk for the month previous and no solids. Increase the allowance as the calf grows older, but not to exceed a half-pound per day.

In addition to the flax seed jelly, or the calf meal just described, a little dry bran and whole oats should be fed. Start with very small quantities. Some clean, sweet clover hay will be a valuable addition to the ration at a very early date.

When may be used where skim milk is not to be had. Change from skim milk to whey as from whole milk to skim milk (see method outlined above). The flax seed jelly, etc., should be used just as with skim milk. The

skim milk should be fed sweet for some time at least. If it is likely, however, that it will sometimes be sour it is advisable to gradually change to sour milk and feed sour milk invariably. The calf should be kept in a dry and warm in winter and dry and cool in summer. A strict observance of the following general directions will almost certainly insure success: 1. Treat the calf kindly and carefully. 2. Be scrupulously clean as to food, pails or troughs, and udder. 3. Make all changes in character of food gradually. This applies whether percentage of butter, times of feeding or any other feature in connection with the food. 4. Feed only wholesome food, feed regularly, and feed in sufficient quantities, but not too generously.—J. H. G.

**Grade Cows in Semi-official Test**

Owing to a demand for yearly "semi-official" records of grade cows, the Wisconsin College of Agriculture has announced that the College will test grade and "natives" in much the same manner as the records for pure breeds have been determined in the past. The department of dairy records will supervise the milk and feed the monthly tests, and will certify to the production of milk and butterfat at the close of the testing year. This will enable farmers to obtain authenticated records of the production of exceptional producers in their herds, irrespective of the breeding of the cows.

The expense for these tests will be the same as for pure breeds, viz., \$6 per month for tests of one day's duration for 10 cows or less, and \$3 per month for tests of two days' duration for the same number of cows or \$72 and \$96 per year, respectively, for herds of 10 cows or less. On completion of the yearly record a certificate of production, suitable for framing, will be issued, which will bear the signature of Dean H. L. Russell of the College and of Prof. F. W. Wolf, in charge of Dairy Tests.

On account of the expense involved, but few grade or native cows have been tested up to the present time, but as such cows make up the most of the dairy herds in the state, the production of which is determined in the so-called cow testing associations, it was thought wise to extend the work into the semi-official ranks.

The testing of pure bred cows has been conducted by the College for the past two years, in cooperation with various dairy breeders, associations, and has been of great value to the breeders of dairy cattle and, indirectly, to the dairy interests of the state. With the inauguration of this more liberal policy even greater improvement should result in the future.—Butter, Cheese and Eggs Journal.

**The Wherefore of Under-drainage**

(Continued from page 5)  
When dry weather came and the water table receded rapidly, we had a crop with a shallow rooting system and hence not half the ability to collect moisture from the soil as did the crops on the tile drained land where the roots grew right down to the tile because there was no water table to interfere with.

This problem of tile draining to get better crops in warm weather was such a perplexing one to farmers in our community that I am writing this explanation for the benefit of farmers in other communities who may be similarly perplexed.

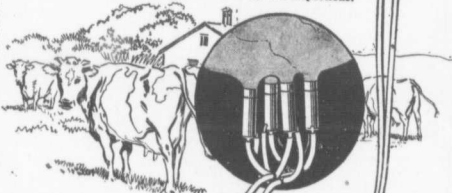
**SHARPLES MECHANICAL MILKER**

**THIS** equipment is revolutionizing modern dairy operation. During the four years since its perfection it has been installed with unqualified success in hundreds of the leading dairies throughout America and abroad.

The distinctive features of the SHARPLES MILKER, to which its complete success is due, are the Teat Cups with the Upward Squeeze and the Patent Pulsator operating them. This device reproduces nature's own method of milk extraction, which the most skillful hand-extracting cannot do.

The cows are more contented. The teats and udder become far better conditioned. The milk product is absolutely uncomminated—pure and more valuable. Labor cut to one-third.

Sharple's Mechanical Milking means the end of all drudgery of milking. Practically every dairyman can visit installations of SHARPLES MILKERS within easy distance, where the actual operation of this equipment can be observed under conditions approximating his own. We shall be pleased to hear from dairymen with a view to their making such inspections.

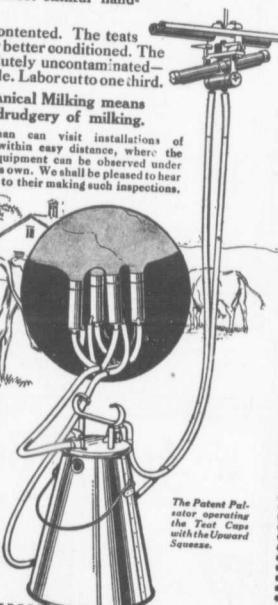


OUR comprehensive Mechanical Milker Catalogue is the most important document to the dairyman now current. Forwarded on request.

The Sharple's Separator Company  
West Chester, Pa.

Branch Office: Chicago Ill., San Francisco, Cal., Portland Ore., Dallas, Tex.

Manufacturers of SHARPLES TUBULAR CREAM SEPARATORS—the 100% efficient Separator with the 3-part equal weighted rotor Catalogue.



The Patent Pulsator operating the Teat Cup with the Upward Squeeze.

**Take Notice** Ye Advertising Men and others that it is now high time you were getting your copy ready and orders in to "F. & D." Press days are May 28 to 31.

**INTERNATIONAL POULTRY FOOD Will Just Double Your Profits**

There is more than increased egg production for you in International Poultry Food. This wonderful tonic—made from roots, herbs and seeds—is purely preventive disease and sickness, promotes good health, supplies material for bone mulling and fibre. It is very beneficial during the hatching season.

Eggs from hens fed International Poultry Food produce fine, vigorous chicks.

**International Poultry Food** is good not only for the chickens you have now, but also for those to come. International Poultry Food, Roup Cure, Louse Killer and other Poultry Remedies are sold by dealers everywhere. If not listed by yours, write us. Every preparation sold on a spot cash guarantee basis to give satisfactory results.

**International Stock Food Co.**  
Limited  
TORONTO ONT.



"Vanity on the highway" still pays a ridiculous toll for automobile travel. But two hundred thousand new Fords will this season go to buyers who prefer real service at reasonable cost rather than ostentatious display at unreasonable cost.

Our factories, produced nearly a quarter of a million Model T's. Prices: Runabout, \$675, Touring Car, \$750, Town Car, \$1,000—f.o.b. Walkerville, Ont., with all equipment. For particulars get "Ford Times"—an interesting automobile magazine. It's free—from Walkerville factory. Ford Motor Company of Canada, Limited.

### Opinions on National Show

The meeting to discuss the holding of a National Live Stock Show in Toronto, reported fully in Farm and Dairy last week, was not the love feast that its promoters expected.

At first, the representatives from outside the city, thought that the meeting might have something to do with the suggestion that was made last winter by Live Stock Commissioner John Bright and Wm. Smith, M.P., at the banquet given by the Canadian Farm to the representatives of the live stock interests that an effort should be made to hold a National Live Stock Show in Toronto. It soon became evident, however, that this was not the case, and that the meeting had been arranged by members of the Toronto City Council without any assurances of support from the Dominion or Provincial Governments.

Mr. J. M. Gardhouse, of Weston, speaking for himself, was favorable to the holding of a truly national show, but not of holding a local show. It would not do for the proposed show to conflict with existing shows.

Prof. H. H. Dean, of Guelph, thought that the students of Guelph and the management of the Guelph Winter Fair would be willing to give their support to such a show, providing it did not conflict with the Guelph Winter Fair, which would be held any way. He thought that the dairymen should be willing to sink their differences and cooperate in the holding of such a show.

Mr. J. H. Grisdale, of Ottawa, Director of Dominion Experimental Farms; Mr. J. Lockie Wilson, Superintendent of Agricultural Societies, Toronto; Mr. Blane represented the Toronto Board of Trade, and Mr. J. G. Kent represented the Canadian National Exhibition. Each spoke briefly and expressed themselves as to \$111.

being in sympathy with the idea of the proposed show, providing it was conducted on national lines, and did not conflict with existing shows.

### Items of Interest

The Canadian Forestry Association have announced July 7 to 9 as the date of the Dominion Forestry Convention to be held in Winnipeg. The farmer's plantation, wind-breaks, and other phases of prairie tree growing will occupy a large share of the attention of the delegates.

All individuals or firms engaged in the business of bringing immigrants to this country or have business dealings of any kind with immigrants are required from now on to have a license from the Superintendent at Ottawa. This license will be issued without fee upon the Superintendent being satisfied that the requirements of the Immigration Act. This act is designed for the protection of laborers coming into this country.

During the past winter, 34 Alberta boys have been conducting a steer feeding competition under the auspices of the Canadian Pacific Railway. Two hundred and seventy-two steers in lots of eight each were entrusted to the boys some months ago and recently the lots were brought to Calgary, judged and sold. The first prize of \$100 was won by Harold C. Bellamy, Keome, all of whose steers credited first class. John Cassels, of Langdon, aged 12 years, had the second bunch of steers and a net profit aside from the prize money of \$175. Third place was taken by Wm. Cassels, Jr., another 12-year-old boy, who had \$192.30 of net profit apart from the prize of \$50. Russell Culp, of Kent, aged 17, secured fourth prize of \$25. The cash returns from the next 12 competitors ranged from \$106

### The Alberta D

(Specially reported by Dairy by 2) Foreful address missioned Marker Deputy Minister of the annual convention Dairy Association critical state of the west. This co at Olds, Alberta, A 1st.

Fourteen years ers, butter was sell a pound, and there market for the hom late as 10 years ago shipped to Ontario Saskatchewan to rel The interval has see the matter of mark grown up in a day capacity for spending has not kept u tant influx of settle year just closed, 5 but were conside 11,500,000 lbs. comin The country that fel to over-production o



A Typ

Last year when H. C. G. of a style of roof that the roof of the old-fashi

can now only manufact of its own supply.

Nor is production de year saw an increase in the butter produced a wholesale price of maintained; thus it m the Western trade is fig. In the opinion there is no reason why the country should not of a great dairying addition to the provin grs., wealthy market grain and fodder per than elsewhere on the

OUTSIDE COMPE Despite this rosy out is in a treacherous market is being invade land butter. In the tariff, this foreign butte east as Calgary, receive two cents preference, manufactured article, and overseas competitor to the higher prices p sending in the best they At present we have no system, and the flat re merchant unwilling to involved when he can g ter with a government prival. According to Marker's analysis, the which we can meet this by producing a better q that we fetch the same imported commodity. Mr. Marker here go ity to give cream gradin the west at least, said he that cream grading has the quality of the cream quantity that of the but up. If this practice is can enjoy the natural a

**Phone** 2 or 3 of your friends and neighbors right now while you are thinking about it to Farm and Dairy. You can easily get up a club in this way, and 5 new subscribers you know will entitle you to one of Farm and Dairy's Pure-bred Pigs.

**ADVERTISE** in these popular columns, which others find so profitable—costs you only \$1.40 an inch.

S.C.R.I. RED EGGS, from good laying strain, \$1.00 per 15. Shipment guaranteed—Jas. C. Barrens, Indian River, Ont.

A BREEDER IS KNOWN BY THE BULL HE KEEPS

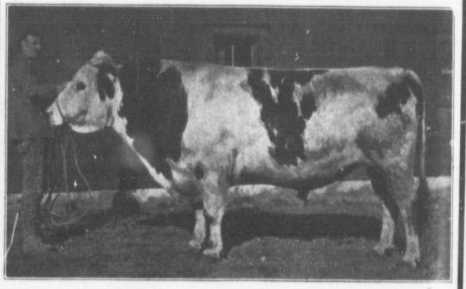
## We Are The Bulls That Made Geo. Anderson Famous

I am "Francy Bonerkes Korndyke"

"The daddy of them all," Velstra Triumph



"Buy the Best, breed Better," is my owner's motto. "Old Triumph" was here first, but just look at my "Young stuff." Of course they're out of his daughters. The "Big Fellow" is quite proud of his shape, and those two new-born dams milking over 100 lbs. a day; he has reason to be proud too, but he needn't think he's the only bull on this farm. Considering my age I'm some bull, and then my mother milked over 97 lbs. in a day and made Canada. Then again my father is a son of "Pontiac Korndyke." Say, I have some breeding!



"He taught me to make good. I have. Look at my daughters. I tell you the best of a bull is the kind of cows he sire.

"I can't forget those great milk records of my dams, no wonder the young sters produce, they're bred that way.

"Constitution, yes I have any amount of it and, better still, I transmit it, along with those milking qualities, to my daughters. That shows I'm pre-ent able. Pretty good things to have in a herd bull. Say, taking into consideration my Breeding, Individuality and Progeny, I'm a Wonder!

**You Don't Experiment When You Buy These Bulls or Their Progeny** They have been Tested, Tried and found Not Wanting!

On June 12th, 48 Head (mostly these bulls and their progeny) will be sold by auction Evergreen Farm, Rossmore, Ont. (Bellefleur District)

Plan NOW to be There - - It will be a June Fair - - Take a Holiday!

The Alberta Dairy Convention

(Specially reported for Farm and Dairy by P. M. Able)
Foreful addresses by Dairy Commissioner Marker and G. H. Courst, Deputy Minister of Agriculture, at the annual convention of the Alberta Dairy Association, held here on the critical state of the dairy industry in the west. This convention was held at Olds, Alberta, April 31st and May 1st.

Fourteen years ago, said the speakers, butter was selling around 10 cents a pound, and there appeared to be no market for the home production. As late as 10 years ago, 800,000 lbs. were shipped to Ontario from Alberta and Saskatchewan to relieve the glut here. The interval has seen a revolution in the matter of markets. Cities have grown up in a day with a prodigious capacity for spending. Dairy production has not kept up with the incessant influx of settlers. During the year just closed, 20,000,000 lbs. of butter were consumed in Alberta, 11,500,000 lbs. coming from Ontario. The country that felt a depression due to over-production only 10 years ago,

artificial and cheap crops, and the tariff discriminating against the New Zealander. Not until cream grading is in force, can dairying in the west assume its rightful proportions.

MIXED FARMING EXTENDING

Last year the provincial government started on foot a mixed farming propaganda. This has met with hearty response and farms are being rapidly stocked up. The bulk of the increase was cattle and hogs. Prof. Elliott estimated that 5,000 dairy cattle were brought into the province last year, most of these coming from Ontario.

The demand for anything that could be called a milk cow was so strong that prices were soaring. An ordinary price for a registered cow is \$250. Some unscrupulous dealers, taking advantage of farmers with more capital than experience, shipped in a lot of worthless culls that are going to cause disappointment. We shall certainly have a heavy increase in production from last year's importation, but indiscriminate buying of poor stock hurts the business incalculably. When

ABSORBINE
Removes Bursal Enlargements, Swollen Joints, Sprains, Bruises, etc.
W. F. Young, P. O. 22, 1233 Armas Bldg., Montreal, C2

"LONDON"
Cement Drain Tile Machine
Make all sizes of tile from 3 to 16 inches.
Largest manufacturers of Concrete Machinery in Canada.

"STOP! HERE'S A DYER FENCE"
Dyer sells a factory price...
The Fence Man, Dept. L. TORONTO

SEND \$1
Receive 5 Cloth Remnants for Boys' Knee Pants.
Standard Garment Co., London, Ont.

THE FENCE MAN, Dept. L. TORONTO
Lump Rock Salt, \$10 for ton lots, L. O. Toronto Salt Works, 128 Adelaide St. E. G. J. Cliff, Manager, Toronto, Ont.

A Pure Wholesome Nutritious Meal
CALFINE
CALVES LAMBS COLTS PIGS

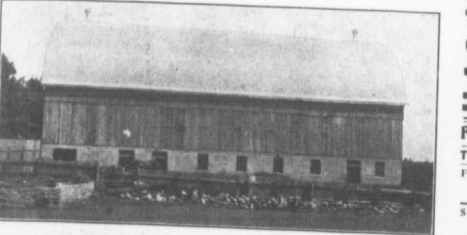
Say
You take a half hour now and get busy on the telephone to tell them about the many valuable things in Farm and Dairy. Then ask them to subscribe. Get up a real wise club. We'll pay you well.

GUARANTEED ANALYSIS
Protein . . . 20 per cent.
Fat . . . 8 per cent.
Fibre . . . 4 per cent.

FOR SALE AND WANT ADVERTISING
TWO CENTS A WORD, CASH WITH ORDER
FOR CHESTER WHITE SWINE, 6 to 8 weeks old, apply A. S. Caldwell, 611 St. Bridge, Ottawa, Ont.

Save \$15.00 to \$20.00 on Your Calf Feed
Write for Booklet and Prices
CANADIAN CEREAL AND FLOUR MILLS, LIMITED
Toronto, Ontario

SINGLE AND DOUBLE ACTION CUTAWAYS for sale. Recommended by Mr. Gridale. F. Hamilton has three of them working here and has ordered other Fruit Farms for sale. Price \$100.00. Widdicombe, James Street, St. Catharines.



A Type of Roof that Affords Much Stronger Beam

Last year when H. C. Garbutt, Peterborough Co., Ont., erected his new barn he adopted a style of roof that admits of almost twice the storage room that is found in the roof of the old-fashioned barn. The roof is in the form of a half-circle and is of corrugated iron.

-Photo by an editor of Farm and Dairy.

can now only manufacture 20 per cent of its own supply. Nor is production decreasing, as last year saw an increase of 23 per cent in the butter produced. Last summer a wholesale price of 27 cents was maintained; thus it may be seen that the Western trade is worth cultivating. In the opinion of all speakers there is no reason why this section of the country should not be the centre of a great dairying industry. In addition to the proximity to a hungry, wealthy market, we can grow grain and fodder cheaper than elsewhere on the continent.

OUTSIDE COMPETITION

Despite this rosy outlook, dairying is in a treacherous position. The market is being invaded by New Zealand butter. In the face of a heavy tariff, this foreign butter comes as far east as Calgary, receiving as much as two cents preference over the home manufactured article. Both eastern and overseas competitors, fully alive to the higher prices paid here, are sending in the best they can produce. At present we have not a butter grading system, and the fact makes the merchant unwilling to take the risk involved when he can get foreign butter with a government stamp of approval. According to Commissioner Marker's analysis, the only way in which we can meet this competition is by producing a better quality article that will fetch the same price as the imported commodity.

Mr. Marker here got an opportunity to give cream grading a boost. In the west at least, said he, everywhere the cream grading has been tried, and the quality of the cream and consequently that of the butter has improved. If this practice is extended, we can enjoy the natural advantage of

these high-priced cows fall to bring the dividends, the industry will get the blame.

The production in 1913 may be large enough to cause a small decline in the price of milk and cream. This should not, however, affect the importation of worthy animals; they are all too scarce in the West.

POULTRY IN ALBERTA

Poultry Superintendent Foley outlined to the convention plans for the cooperative marketing of eggs and dressed poultry. Owing to the lack of knowledge among producers, immense quantities of unsound eggs are now offered to the trade. This, more than anything else, is responsible for the present difference of from 10 to 30 cents a dozen between the price at Calgary and country points. Transport is very expensive and storage facilities limited. This combination of adverse circumstances has killed all but the local egg trade in Alberta.

The future efforts of the Poultry Branch will be along lines of stimulating the production of a higher quality article and marketing cooperatively through creameries. Last year the egg trade of the province amounted to \$1,000,000. With the government regulation of marketing, Supt. Foley predicted an increase of 100 per cent for the coming year.

DEMONSTRATION MILK PANS

The Department of Agriculture has established seven dairy farms for demonstration purposes throughout the province. The convention at Olds was held on one of these. Here the herd consists of some 30 Holsteins, about half of them registered. Mr. A. A. Craig, Supt. of Farms, used six of these animals to demonstrate dairy (Continued on page 16.)



"If wishes were horses then beggars might ride"
Boys! Boys!! Boys!!!
What say you to fulfilling your wishes and getting a pure bred pig of your very own. We have a pure bred pig for you. Here is your opportunity to get

YOUR CHOICE
Free from Farm and Dairy
TAMWORTH, YORKSHIRE OR BERKSHIRE
You need only to see 9 of your father's friends and neighbors who are now taking Farm and Dairy, get them to take Farm and Dairy for a subscription at only \$1.50 each and we'll send you your choice of boar or breeder you prefer.

Right boys can win one of these pure bred pigs on a Saturday, or in a few afternoons on the way home from school. Over 200 boys and other people have won Farm and Dairy pure-bred pigs; these pigs are dandies every one of them. You'll be proud to own one. Say you write to Farm and Dairy right away and say: 'I want to win one of your pure-bred pigs. I'll get the nine new subscribers and their soon as possible. Then get busy seeing your father's friends and neighbors. You can probably call enough of them on the telephone. Say you do now while you think about it.'

Farm and Dairy
Peterboro, Ont.

# FARM AND DAIRY

AND RURAL HOME

Published by the Rural Publishing Company, Limited.

**I. FARM AND DAIRY** is published every Thursday. It is the official organ of the British Columbia, Eastern and Western Ontario, and Prairie Provinces, Quebec, Dairy-men's Associations, and of the Canadian Holstein Cattle Breeders' Association.

**2. SUBSCRIPTION PRICE**, \$18 a year. Add 50¢ for postage. One year's subscription of subscribers are sent to all subscribers, who then continue to receive the paper until they send notice of discontinuation. No subscription is continued for more than one year after date of expiration. A year's subscription free for a club of two subscribers.

**3. REMITTANCES** should be made by Post Office or Money Order, or Registered Letter. Postage stamps accepted for amounts less than \$5.00. On all orders add 30 cents for exchange fee required at the bank.

**4. CHANGE OF ADDRESS**—When a change of address is ordered, both the old and new addresses must be given.

**5. ADVERTISING RATES** quoted on application. Copy received up to the Friday preceding the following week's issue.

**UNITED STATES REPRESENTATIVES**  
STOCKWELLS SPECIAL AGENCY  
Chicago Office—200 Dearborn Building.  
New York Office—255 5th Avenue.

**6. WE INVITE FARMERS** to write us an original article. We are always pleased to receive critical articles.

**CIRCULATION STATEMENT**  
The paid subscriptions to Farm and Dairy exceed 12,000. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 16,150 to 17,300 copies. No subscriptions are accepted at less than the full subscription rates.

Sworn detailed statements of the circulation of the paper, showing its distribution by counties and provinces, will be mailed free on request.

**OUR ADVERTISER**  
We guarantee that every advertiser in this issue is reliable. We are able to do this because the ads are carefully edited by the reading committee, and because we protect our readers, and because to scrupulous advertisers. Should any advertiser herein advertise dishonestly with you as one of our paid-in-advance subscribers, we will make good the amount of your loss, plus double the amount occurs within one month from date of this issue that it is not made up within one week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that in writing to advertisers you say: "I saw your advertisement in Farm and Dairy."  
Refuses shall not pay their trade at the expense of our subscribers, who are our friends, through the medium of these columns; but we shall not attempt to adjust trifling disputes between subscribers and honorable business men who advertise, nor pay the debts of honest bankrupts.

## FARM AND DAIRY

PETERBORO, ONT.

### CHEAPER FARM CREDITS

In the discussion of economic conditions as they relate to agriculture, the opinion appears to be held by many that if changes can be brought about by means of which farmers will be enabled to obtain loans on low terms of interest, many of the problems of the farm will be settled. We are not as hopeful of this proving true as many seem to be. While we believe that farmers should have every possible advantage in the obtaining of easy credits, the ultimate outcome is likely to be that the cost of the goods they desire to obtain will be advanced enough to more than offset any improvement in the facilities for obtaining cheap money. Take for instance, a young man desiring to buy a farm: When such a young man begins to negotiate for the purchase of a farm the men who own those farms will know, as well as he does, the terms

upon which he is able to obtain advances. In consequence they will increase the price of their farms in proportion. The same principle works through all lines of business. Improved facilities for obtaining money are almost invariably soon counteracted by an increase in the cost of those things which the money enables one to buy.

What we are most anxious to see is such an improvement in economic conditions that farmers will be able to make enough off their farms that it will not be necessary for them, except under unusual conditions, to look for loans at all. Were it not for the fact that existing conditions are working strongly against the farmers it would be unnecessary for any large portion of our farmers to mortgage their farms in order to raise money. When we understand the forces that are handicapping us, such as unjust tariff laws and an unfair taxation system, as well as the monopolization of our natural resources and of our transportation systems, we will, by improving these conditions be able to so increase the net returns of the average farm that the same need will not exist as does at present for cheaper credits.

### EDUCATIONAL COOPERATION

A farmer's education nowadays cannot be considered well rounded and complete unless it embodies instruction in marketing as well as in production. Farm marketing is becoming more and more cooperative marketing. In a recent issue of Farm and Dairy we called attention to a bill before one of the state legislatures of the United States making provision for the teaching of cooperative marketing in the public schools, and suggested that such legislation would be equally timely and valuable in Ontario and the other provinces of Canada. Prof. S. B. McCready, Director of Elementary Agricultural Education in Public Schools of Ontario, in a recent letter, endorses the suggestion advanced by Farm and Dairy, and adds the following pertinent sentence:

"The teaching of cooperation in our public schools would be a very difficult task unless made real and practical through the children's work; book teaching of it is almost outside the mark for our public schools."

Prof. McCready is about right. Even as production and marketing must go together in the after life of the child, so must instruction in the two subjects be given together to be of the greatest practical value. The co-operative spirit that will be developed among the children in the operation of their school gardens, develops their cooperative instincts and adds to the interest that they would take in more purely cooperative instruction. Were Prof. McCready's ideas, as advanced by him in various school bulletins, more fully carried out and school improvement societies, school fairs and school picnics organized, the cooperative spirit of all in the community would tend to develop.

We do not believe, however, that book teaching of cooperation, par-

ticularly in the higher grades of rural schools, is outside of the mark of public school instruction. If instruction in production can be properly introduced into our public school system, we believe that instruction in marketing, particularly cooperative marketing, has a proper place there too. The two work admirably together.

### WILFUL WASTE

"I believe that the average farmer of this country is dropping all the way from \$100 to \$200 in good hard cash every year through his careless methods of housing and handling his implements." This statement, made by an agricultural implement man whose business covers all of one province, should cause some of us to sit up and take notice of the manner in which we are caring for our own implements.

It isn't the fault of the farmer that the binder for which he paid \$135 lies idle 51 weeks of the year. The nature of his calling makes it impossible for him to use his machinery constantly as does the manufacturer. It is the farmer's fault, however, if the binder is allowed to rust out because of lack of attention during the idle 51 weeks. The fact that the farmer uses his machines so little should be all the greater reason why he should take the greatest care of them.

On thousands of farms, perhaps some into the homes of which Farm and Dairy goes, the implements are drawn out in the spring and may be found almost anywhere on the farm but in the implement shed until the fall. If one is going to house implements at all, it would be better to leave them exposed in the winter and housed in the summer, as rusting proceeds much more rapidly in the warm summer weather.

### RAILWAY TAXATION

We in Canada have the most insane railway policy of any country on the face of the earth. We bonus our railways heavier than any other country, we give them larger land grants; and after we have done all of this, we subject them to lighter taxation than rules elsewhere. The members of the council of Grey Co., Ont., believe that the railways should be made to return to the people in just taxation a small portion of what they have received from the people. Moreover, they intend to do their part to see that our railways are taxed as they should be. At the November session of the Grey County Council, Mr. John R. Philip moved:

"That this council memorialize all other county councils in the province with a view of having representatives of some meet on some convenient date in the city of Toronto and have the matter of equitable equalization of taxation threshed out, and, if need be, obtain an interview with the Provincial Cabinet."

This resolution met with hearty approval, and the following counties have fallen in with the suggestion coming from Grey, and have appoint-

ed delegates to a conference that will meet in September: Simcoe, Bruce, Norfolk, Victoria, Peterboro, Waterloo, Durham, Lambton, York, Elgin, Wentworth and Prescott and Russell.

The claim of the Grey county councillors that our railroads should be more heavily taxed would seem to be a just one. Up to June, 1911, the Dominion Government subsidized and bonused railways to the extent of \$148,217,071.75. The Ontario government has subsidized railways lying in its domain to the extent of \$13,361,075.68, and the various municipalities have expended \$18,042,923.60 in the same manner. In addition to these large cash subsidies, Canadian railways have received land grants totaling 35,000,000 acres and bonds and guarantees of \$60,000,000. And with all of this assistance railways in Ontario and in the rest of Canada, are much more lightly taxed than the ordinary ratepayer.

An official report of the Railway Department at Ottawa states that Ontario has 8,230 miles of railway, and receives in taxes \$747,000 or less than 80¢ a mile. Railways in Michigan, where conditions are similar to what they are in Ontario, pay taxes of \$400 a mile; in Dakota of \$300 a mile; Wisconsin, \$440 and in Maine, \$314 a mile. And even at this higher rate of taxation the United States railways, under like conditions and mileage, afford a lower freight and passenger tariff than obtains in Ontario.

It is evident that our railways are not paying anything like their fair proportion of the taxes. It is only a matter of common justice that they should be on the same basis as the farmer when it comes to meeting the assessor and tax collector. County councils that did not appoint delegates to the Toronto conference at their last session, would be wise to do so at their next session, in June. The question has now been opened up, and it is up to the county councils of Ontario to push the matter vigorously.

Based on the value of the various fertilizing ingredients contained in commercial fertilizers, we estimate that a ton of farmyard manure properly served is worth to the farmer six dollars and sixty-five cents. The average ton of farmyard manure will contain five pounds of phosphoric acid, ten pounds of nitrogen, and ten pounds of potash. At seven cents, eighteen cents, and five cents a pound respectively, we get our total of two dollars sixty-five cents. If an average ton of manure is worth two dollars sixty-five cents because of its fertilizing value, is it worth while taking care of it? Is it worth while hauling it to the field? Be sure and clean the barnyard well this spring. We cannot afford not to.

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What is manure properly served is worth to the farmer six dollars and sixty-five cents.

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Cooperation among farmers, not only in things commercial, but also in things political, will result in better living for the farmer and improved social and educational conditions for the family.

### Notes on Farm

**E. F. Eaton**, of Potatoes are or making crops do Scotia. I am not of Ontario is a quarter of an so, and the chance potatoes on the p under the plow I not consider that fiably without.

### AD.

LX.

Some breeders agnost at the id asked, "Does it men of the prog THAT IT WOUL Gooderham, of the have his QUARTI in Farm and Dair to advertise and increase in his cattle.

Mr. Gooderham running his ad, f over his first year page space in Farm is his decided int right along.

What more prosire that it pays space in Farm an

He says: "I've and Dairy is excell fed right from the

Of course you yourself much of ju to Mr. Gooderham sage going out each than 16,000 possib Holsteins.

He sends this m commanding space Dairy at the merest it would cost to acc results in any other

In each and all has told a plain, si He has good stuff to stuff to sell, and he sonable prices.

In many ways his have been unique.

absolutely new star stock breeders—(not of space)—his ads, real sales staff, gene the first person, an able, interesting, w and often illustrated his own stock.

Never before in rnalism has a farmer try out his conviction to advertise as Mr. C done in his 1/2-page now running well in year.

Others may be exp follow him. There are more of breeders who would pay well to h page each week in Farm

It simply means set value of one real good to advertise and make increase from a herd of Mighty good business

Write us for particul are ready to reap a sit age through Farm and "A Paper Farmers

**Notes on Potato Culture**

E. F. Eaton, *Oshkosh Co. N. S.*  
 Potatoes are one of our best money-making crops down here in Nova Scotia. I am told that in many sections of Ontario the farmers grow only a quarter of an acre of potatoes or so, and the chances are, put their potatoes on the poorest piece of land under the plow that season. We do not consider that we can farm profitably without a good area in potatoes.

**AD. TALK**

LXXXI.

Some breeders have stood aghast at the idea! Others have asked, "Does it pay?" Business men of the progressive type KNEW THAT IT WOULD RAY Gordon S. Gooderham, of the Manor Farm, to have his QUARTER PAGE of space in Farm and Dairy EVERY WEEK to advertise and make sale for the increase in his herd of Holstein cattle.

Mr. Gooderham has now been running his ad. for several weeks over his first year in his quarter-page space in Farm and Dairy. It is his decided intention to continue right along.

What more proof would you desire that it pays him to use this space in Farm and Dairy!

He says: "Advertising in Farm and Dairy is excellent! I am satisfied right from the ground up!"

Of course you can picture to yourself much of just what it means to Mr. Gooderham to have his message going out each week to more than 16,000 possible buyers of his Holsteins.

He sends this message out in his commanding space in Farm and Dairy at the merest fraction of what it would cost to accomplish the same results in any other way!

In each and all of his ads. he has told a plain, simple message. He has good stuff to tell about, good stuff to sell, and he sells it at reasonable prices.

In many ways his advertisements have been unique. He has set an absolutely new standard for live stock breeders—(not alone in point of space)—his ads. have been of real sales' stuff, generally written in the first person, and always readable. Interesting, well displayed, and often illustrated from photos of his own stock.

Never before in Canadian journalism has a farmer made bold to try out his convictions that it pays to advertise as Mr. Gooderham has done in his 1/4-page weekly space now running well into the second year.

Others may be expected to shortly follow him. There are a score and more of breeders whom we know it would pay well to have a quarter-page each week in Farm and Dairy.

It simply means setting aside the value of one real good Holstein cow to advertise and make sale for the increase from a herd of 50 to 100! Mighty good business that!

Write us for particulars when you are ready to reap a similar advantage through Farm and Dairy—

"A Paper Farmers Swear By"

tees, and we give our potato crop the best land and the best attention. We calculate in getting at least 200 bushels of marketable potatoes to the acre. At an average price of 50 cents a bushel, an acre's crop would bring us \$100. Outside of fruit I know of no other crop as profitable. By storing our potatoes and shipping in the winter we can bring the aggregate return per acre considerably over \$100. We Toronto can ship our potatoes all the way to the Ontario grower and still make money. Perhaps, therefore, a description of our cultural methods would interest Farm and Dairy readers.

The first point, and one on which we lay great emphasis, is the thorough working of the soil. We start in the fall, plowing the sod quite early, working both lengthwise and then running up the disk harrow with the double-mold board plow. This gives the frost every chance to pulverize the soil and make plant food available. When spring comes we cross over the ridges with a spring tooth harrow and a couple of draggings levels the field and leaves on the surface three inches or so of fine mellow soil. We then spread eight or 10 loads of manure to the acre, more if we have it, over the field and disk it in. We prefer disking in to plowing in. After the disk comes another turn with the spike tooth harrow and we are then ready for planting.

We make the horse do the most of the work. The drills are opened with the plow, each drill being from 27 to 30 inches from the next one. The seed is then dropped by hand, one piece each 15 inches in the drill. We then cover with the plow and the planting operation is over.

I must not forget to say something about commercial fertilizers. Even when we have lots of manure, the most of us use commercial fertilizer and believe that we get good returns from it. Quite a few farmers use ready mixed fertilizers, but others are coming to believe that it is more profitable to buy the pure chemicals and mix them at home. A mixture that some are using with good results is 300 lbs. sulphate of potash, 150 lbs. of acid phosphate, 100 lbs. nitrate of soda. This application is used where there is little manure available. If there is plenty of manure the nitrate of soda might be omitted altogether and the quantities of the other two ingredients reduced.

It is important that the commercial fertilizer have a high percentage of potash as the potato is a potash consuming plant. Another point that I might caution readers against is using muriate of potash instead of the more expensive sulphate. Potatoes grown on land fertilized with muriate of potash are found certain to be soggy and of poor quality. This fertilizer proposition is one with which every farmer should experiment. The fertilizer may be sowed either in the drill behind the plow or broadcast on the land. We have noticed no difference in results between these two methods and the latter is easier.

After cultivation consists in dragging the rows lengthwise with a spike tooth harrow behind the plow and then to appear above the surface and then in constant cultivation.

Just one other thing I would mention. We have a standard variety and grow no other than a dealer in Halifax wants to write for a card of one variety we could give it to him. If we did not have a whole car load of prizees, our neighbors and grow the same variety as we do, and we'd soon swap up a car among us. This we consider a most important point.

**Ask Your Neighbor About his DE LAVAL**

Wherever you find a De Laval user you will find a "booster." The De Laval satisfies, pleases and makes money for its more than a million and a half owners.

There are probably quite a number of your neighbors who are using cream separators and in most communities a majority of these machines are De Laval's.

If you expect to buy a separator it will be worth your while to see what some of these De Laval users think of their machines.

If the evidence of your neighbors who use and recommend the De Laval is not enough to convince you of De Laval superiority, have the local De Laval agent put you on trial for you and try any other machine you want to alongside of the De Laval.

Let the De Laval start saving your cream right now, this spring. It will soon pay for itself.

The new 72-gallon De Laval Dairy Hand Book, which contains dairy questions are ably discussed by the best authorities, is a book that every cream owner should have. Making a spot request if you mention this paper. New 1913 De Laval catalog also mailed upon request. Write to nearest office.



**De Laval Dairy Supply Co.**

Limited  
 MONTREAL  
 PETERBORO  
 WINNEPEG  
 VANCOUVER

**SOONER OR LATER YOU WILL BUY A DE LAVAL**

**PUMPING**

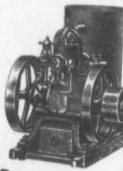
**With a "GOES LIKE SIXTY" Pumping Outfit**



No more backaches. No more waiting for the wind. The GILSON GO SPEEDER is the ideal pumping engine. It "GOES LIKE SIXTY" - It is a portable power house, ready to operate your wash machine, cream separator, churn, electric light dynamo, wood saw, feed cutter, grinder, pulper, etc. It is mounted on wheels, complete with line shaft, five interchangeable pulleys, and universal pump jack. The only engine, fully equipped, ready to yield 100% service. A powerful, durable engine, built to last a lifetime. The simplest engine on the market. A child can operate it. Write for full particulars and also catalogue of pumps, pump jacks, wood saws, etc.

**Gilson Manufacturing Co.**  
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**This Engine Runs on Coal Oil**



Every farmer can afford an Ellis Coal Oil Engine. They give far more power from coal oil than other engines do from gasoline. They are made, as well as cheap, no danger of explosion or fire.

The strongest and simplest farm engine made; only three moving parts; nothing to get out of repair. Any one can run it without experience. Thousands of satisfied customers use these engines to grind feed, fill silos, do most of their jobs. Cheaper than horses or hired men. Fill up the tank and start it running, and no stop it. Further attention is necessary; it will run till you

**FREE TRIAL FOR 30 DAYS.** You do n't have to take our word for it. We'll send an engine anywhere in Canada on Thirty Days' Free Trial. We furnish full instructions for testing on your work. If it does not suit you send it back at our expense. We pay freight and duty to get it to you and we'll pay it to get it back. If you don't want it.

Absolutely guaranteed for 12 years. Write for free catalog and opinions of satisfied users. Special offer to new territory.

3 to 16 horse-power. We pay Duty and Freight. **Ellis Engine Co.,** 90 Mullett Street, DETROIT, MICH

# Wood or Concrete Silos, Which are best?

Over in the U. S. many experiments made by the various agricultural experiment stations have conclusively shown that silage does not keep as well in cement, stone or brick silos as in silos constructed of wood.

Furthermore, the advantage of the wood silo over cement, stone or brick is greatest in a cold climate.

The vital question is "Which silo will keep the silage in the best condition?"

If you are interested in reading the unbiased opinion of scientific investigators who have given this question careful investigation we shall be glad to send you, upon request, reprints of some of the experiment station bulletins giving in detail the reasons why wood silos make the best silage and keep it in the best condition.

We shall also be pleased to send you our silo catalog, and give you any other silo information desired.

We are exclusive distributors in Canada of the World's Standard De Laval Cream Separators, and also carry a complete line of creamery and dairy machinery and supplies. If interested write for separate catalogs.

**DE LAVAL DAIRY SUPPLY CO., Ltd.**  
LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA  
MONTREAL PETERBORO WINNIPEG VANCOUVER

## Cheesemakers

Make big money in your spare time taking subscriptions for Farm and Dairy. Write our Circulation Department now for full particulars.

## Cream Wanted

We furnish cream and pay express charges. Drop us a card for reference—Imperial Bank, Ridgeway, Creamery, Ridgeway, Ont.—Point Abino

## CREAM CREAM

### Sweet or Sour

We are buyers of Cream and will pay the highest price for it per Butter-Fat test. We will supply the cans. Make prompt returns by bank Draft, payable at par, at any Bank in any town. We will operate the year around.

References Bank of Montreal.

**THE BOWES COMPANY, Limited**  
74-76 Front Street E. - - - Toronto

# \$5 95 AND UPWARD SENT ON TRIAL AMERICAN SEPARATOR

Thousands in Use giving splendid satisfaction justifies your investigating our wonderful offer to furnish a brand new, well made, easy running, easily cleaned, perfect skimming separator for only \$15.95. Skims one quart of milk a minute, warm or cold. Makes thick thin cream. Different from this picture, which illustrates our low priced large capacity machines. The bowl is a sanitary marvel and embodies all our latest improvements.

### Our Twenty-Year Guarantee Protects You

Our wonderfully low prices and high quality on all sizes and general terms of trade will attract you. Whether your dairy is large or small, do not fail to get our cream separator. It is the most economical, most efficient and separate. Shipments made promptly free from Winnipeg, Minn., St. John, N. B. and Toronto, Ont. Write today for our catalog and see for yourself what a big money saving appliance we will make.

**AMERICAN SEPARATOR CO., Box 1209 Bainbridge, N. Y.**



## Creamery Department

Butter makers are invited to send contributions to this department, to ask questions on matters relating to butter making and to suggest subjects for discussion. Address contributions to Creamery Department.

### The Case for Grading

By L. P. Anderson

Mr. Jones is a careless dairyman, washing his separator only once every two days and leaving his cream sitting in the cans, or perhaps in the kitchen, and delivers his cream to the creamery only once a week.

Mr. Smith is a progressive and careful dairyman, who washes and calks his separator after each separation, cools his cream thoroughly, and never mixes until ready to deliver to the creamery, which he does three or four times a week in a nice, clean, sanitary condition.

Why should there not be a premium on the nice, sweet cream over the sour and almost decomposed cream?

The grain buyer pays according to the purity of the grain he buys. The stock buyer pays according to the quality of the live stock he buys. The merchant pays according to the quality of the produce and provisions he buys. Why then should not the cream buyer pay according to quality of the cream he buys?

### The Marketing of Dairy Butter

Philip Fockler, York Co., Ont.

The butter business is one of the most remunerative businesses of the day, if properly conducted, and there is no reason why the Canadian people cannot supply the demand of our own country with first class butter. The demand for butter seems practically unlimited, more especially for the better grades. The growth of the cold storage industry has tended to equalize prices by increasing the demand in summer, when butter is plentiful, and supplying the deficiency in winter when butter is scarce.

Since the demand is greater for the best grades, it is to our interest to produce what is wanted and the price depends chiefly upon the taste of the consumer. The intelligent butter-maker studies the tastes of those people who are willing to pay well for what suits them, and then he learns how to make that kind of butter. It is the only way he can get their money. It is not the expense of manufacture that fixes the price. The consumer cares not that the butter perhaps cost untold labor on the part of some one who churned and prepared it for market. If inferior it sells for an inferior price regardless of its cost of production, and if it is superior, it sells at top price, though made with ease and little expense. And the beauty of the fact remains that the cost of producing the best butter need not be greater than that of producing goods of a poorer quality; in fact, the bad article is generally made at the greater cost, and a little more attention to details will result in a profit amply repaying the extra time and labor involved.

In order to obtain a top price for butter it should have a good flavor which would be so pleasant to the sense of smell, and so sweet to the taste that it will create a desire for more. The texture, grain and closeness should be waxy and firm,—not salty, greasy or crumbly; should be close in body, not spongy, and should not contain too much or too little moisture. The color should be uniform and according to the requirements of the market. Salt according to the market for which the butter is intended. Too much salt destroys the

sweet taste and too little salt makes the butter insipid and tasteless.

The package of the butter is a very important point. The appearance of the butter when it goes to market is one of the things that sells the butter and it is one thing many farmers' wives overlook. It should be neat, clean and attractive. The one pound brick print is the style most used and the merchant or dealer to whom you sell to the merchant or dealer you will receive a better price for they can handle it at less cost and less waste. The parchment paper should be of good quality, of proper size and should be dipped in cold water before wrapping it on the butter. You should have some special brand printed on the wrapper with your name or name of your farm. The prints should weigh not less than 10½ ounces each, the extra weight being for shrinkage before reaching the consumer. The time of marketing will depend on local conditions but should be very soon after being made, as often as once a week at any time of the year. Use plenty of ice, and if possible keep below freezing point until on the consumer's table.

What can be done in connection with the sale of other produce such as eggs and poultry the most profit can usually be made by selling direct to the consumer. If you have not a store after your customers, then you can sell to dealers and an extra price can be obtained from them also as soon as they are convinced that the butter furnished is first class. It should be remembered that it will take time to work up a demand for finest butter but when people are once convinced that the butter can be depended upon, they will not only call for such butter, but will tell their neighbors about it. At personal selling better for a profit should be studied, and make an effort to become proficient in the business they have undertaken. With willing hands, an active mind and a strong determination to reach his goal, he will succeed. "For his heart is in his work and the heart giveth grace unto every art."

### Iced Butter Car Service

Commencing on Tuesday, May 13th, the Canadian Pacific Railway will run a refrigerator car service for butter only to Toronto and Montreal. The service will be four cars weekly as follows:

- (1) From Windsor each Tuesday, a Way-freight extra. This car will leave London on Way-freight extra Wednesday a.m., and Toronto Thursday night. Shipments from intermediate main line stations from Toronto to Montreal on this car.
- (2) From Goderich, Ont. every Wednesday on Way-freight extra.
- (3) From Owen Sound, iced car every Wednesday on Way-freight extra.
- (4) From Teeswater every Wednesday on Way-freight extra. The service on the Goderich line will start on June 14th. Current tariff on less than car load rates will apply without any charge for icing.

### The Alberta Dairy Convention

(Continued from page 13.)

the convention on dairy cattle feeding. Prof. Elliott spoke on agricultural education. The Hon. Duncan Marshall discussed the past work and future plans of his Department at Edmonton.

The gold medal and trophy for highest scoring butter made at any provincial creamery was won by J. H. Skeletsky, of Viking. Four silver medals were awarded to M. L. Campbell, Red Deer; W. H. Jackson, Markerville; Wm. Hanson, Infaill, and J. A. Brown, Quarrel.

## Cheese De

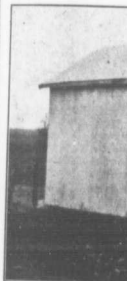
Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making and to suggest subjects for discussion. Address contributions to the Cheese Making Department.

### Chatty Letter

Henry Cotton Oz

The prospects for cheese at our factory seem to be very good. Our butter this winter ever made during the previous year. We butter until May 15, farms an opportunity skim-milk at home at their spring calves a

In some parts of our number of cows has been on the larger number has increased



### A Why Tank S

The steel covered why Factory in Prince Edward elevated wooden tank

I have visited a number of the stables in connection. The farmers had of feed this winter, and the amount of butter was and the appearance of was evidently using it, was very heavy last though harvesting condition of the best, the oats have lost feed.

There is a decided tendency of the farmers to depend more extensively on several causes. This is important from the view of the farmer as the price of milk last year. We paid \$1.0087 a cwt. and \$1.0067 a cwt. during season. When we consider milk is hauled eight from door to the factory and they returned to his farm pretty good prices for milk. Those patrons who see cream for butter were to be. The average price was 21¢ in winter season was 31.26¢.

Another cause of increase in the advent of the milk. There are several farm vicinity who have installed machines. The machines satisfactorily so far. Many are visiting the places where machines are installed, and in conversation with a few of farmers I cannot find the favorable impressions of cheese making. I believe can get a ming machine milk the cows out clean, a favorable effect on the co





**"KEEP one thing forever in view—the truth; and if you do this, though it may seem to lead you away from the opinions of men, it will assuredly conduct you to the throne of God.—Horace Mann.**

## Rose of Old Harpeth

By MARIA THOMPSON DAVIES

Copyright, 1912, The Bobbs-Merrill Company

(Continued from last week)

"YES, I reckon it were, but my mind was so took up with the way Louisa Helen flirted down the aisle with Bob on one side of her and Mr. Crabtree on the other, I couldn't hardly get my mind down to listening. And when she contrived Mr. Crabtree into the par next to Miss Plunkett, as she moved down for 'em, I mist gave a snort out loud. Didn't Miss Plunkett look nice in that second mourning tucker it took Louisa Helen and all 'Sweebsbriar to persuade her into?"

"Lou Plunkett is as pretty as a chiny aster that blooms in September and what she's having these number-two conceptions over Mr. Crabtree for is more than I can see. I look on a second husband as a good desert after a fine dinner and a woman oughter swallow one when offered without no mising. Mr. Crabtree make two bites of taking Mr. Plunkett if it was me. Of course there never was such a man as Mr. Satterwhite, but he is as always a kinder gentler. Mr. Rucker is a real pleasure to me a-setting around the house on account of his soft constitution. Mr. Satterwhite, I'm thankful to say, left me so well provided for that I can afford Mr. Rucker as a kind of play ornament."

"Yes, they ain't nothing been thought up yet to beat marrying," answered Mrs. Poteet. "Now didn't Emma Satterwhite find a good chanct when Todd Crabtree married her and took her away after all that young Tucker Alloway doings?" It were a kind of premium for lightness, but I for one was glad to get her gone off'n Rose Mary's hands. I couldn't a-bear to see her tending hand and foot a woman she were fitted for."

"Well, a jilt from some men saves a woman from being married with a brass ring outen a popcorn box, in my mind, and Tucker Alloway were one of these kind of men. But talking about marrying, I'm kinder troubled in my mind about something, and I can depend on you not to say nothing to nobody. Mr. Gid Newsome stopped at my gate last week and got me into a kinder hating chawer that have been a-trobbing me ever since. Now that's where Mr. Rucker is such a comfort to me, he'll stay awake and worry as long as I have need of, while I wouldn't a-dared to speak to Mr. Satterwhite after he put out the light. But this is about what I've pieced out that talk with the Senator, with Cal's help. That mortgage he has got on the Briars about covers it, like a double blanket on a single bed, and with the interest beginning to pile up it's hard to keep the ends tucked in. The time have come when Mr. Tucker can't



make it no more and something has got to be done. But they ain't no folks. I gather from a combination of what Mr. Gid looked and *didn't* say that he were entirely willing to take over the place and make some sorter arrangement about them all a-staying on just the same. That'd be mighty kind of him."

"You don't reckon he'd do no such take-me-or-get-out co'ting to Rose

pretty enough herself to hand it down to the third and fourth generations. But I must go and see to helping Granny out on the side porch in the sun. I never want to neglect her, for she's the only child poor Mr. Satterwhite left me. Now Mr. Rucker—Why there comes Miss Amanda down the front walk! Let's go and me go to meet her and see what she wants. We can help her across the Road if she is a-going to see anybody but us!" And with eager affection the two strong young women with their babies in their arms hurried across the street in order to serve if need be the delicate little old lady who with her gray skirts fluttering and the little shawl streaming out behind, was coming at her tottering full speed in that direction. In her hand she held carefully a bit of sheer, yellow, old muslin, and her bright eyes were beaming with delight as she met the two neighbors at the gate.

"It's the dress," she exclaimed, all out of breath and her sweet little voice all a-tremble. "Sister and me and Tucker were all baptized in it when we were babies. Sister Vinny had me a-going through boxes and bundles for it ever since little Tucker was named for us, and here it be! It's hand-made and New York, brought all the way from New York down to the city in a wagon before the railroad run. It's all the present we have got for little Tucker, but we thought maybe—" And Miss Amanda paused with a shy diffidence in offer-

ing. Mary rubbed her most a hour last night." And in response to the eager invitation they all three went back up the front walk together. The thrifty Mrs. Rucker cast a satisfied glance back towards her own side yard, where upturned tub and drying wash were in plain view. Mrs. Poteet had put off the task of the wash until a later day of the week and thus could make her visit with a mind unharrassed by her vision of suds boiling over on the stove and soap melting in the tub.

And there ensued several hours of complete absorption for the four women closeted in Miss Lavinia's room in reviewing the events of the last half century by means of the reminiscences which were inspired by one so earthed heirloom after another. Polly and Shoofly were happy on the floor enveloping themselves and each other in long wisps of bolt-eaten yarn that Miss Amanda drew in and in a bare rear drawer and donated to their amusement. Mrs. Poteet had with her usual happy forgetfulness of anything but her very immediate occupation, lost sight of the fact that she had left young Tucker asleep on the bed in her room, which location, counting the distance across the yard and down the Road, was at least a righty room from said in case of a sudden restoration to consciousness for the young sleeper.

And in the natural course of events the young Alloway namesake did awaken and gave lusty vent to a demand for human companionship which was answered promptly by the General, who happened to be passing the front gate in pursuit of his own. Finding the house deserted, with the usual decision of a lion taming he picked up the baby and kept on his way which led past the garden up the hill to the barn. Young Tucker accepted this little journey in the world with his usual imperturbability, and his sturdy little neck made unusual efforts to support his bald head on the General's shoulders as if in proof of being in the company of one of his owners and not in the usual feminine thralldom.

Finding the barn also deserted, Stoney laid young Tucker on the straw in the barrel with two of Sniffer's sleeping puppies and began to attend to his errand, which involved the traction of several long, stout pieces of string from a storehouse of his on under one of the feed bins and the plaiting of them into the cracker's a whip which he had brought along with him.

Down below the store the rest of the Swarn were busy marking out a large ring and discussing with considerable heat their individual rights to the park. It was in the performance of the coming exhibition ardors of their several ambitions set not at all dampened by the knowledge of the fact that the audience the always came, brought a chair to sit on, and staved through the entire performance. And in the talented aggregation of performers there was course just one role that could have been assumed by General Jackson, that of ringmaster. He himself sat on the floor of the barn beside the sleeping puppies and young Tucker and plaited the lash by means of which he intended to govern the courses of his stars.



A Home Attractive Without and Convenient Within

This fine new brick farm house is the home of L. H. Lippsett and family of Bigin Co. Out the house is lighted with natural gas. Mrs. Lippsett cooks with natural gas and among other conveniences is numbered running water, hot and cold. Road about this splendidly equipped home is an article in this issue.

—Photo by an editor of Farm and Dairy.

Mary, do you?" asked the soft-natured little Mrs. Poteet with alarmed sympathy in her blue eyes.

"Oh, no, he ain't that big a fool. Every man knows in marrying an unwilling woman he's putting himself down to eat nothing but scraps around the kitchen door. But I wish Rose Mary could make up her mind to marry Mr. Newsome. She might as well, for in the end a woman can't tell nothing about taking a man; she just has to choose a can of a good brand and then be satisfied, for they all season and heat up about alike. I never gave him no satisfaction about his praises to her, but I reckon I'm fit for the tie-up if Rose Mary can see it that way." And Mrs. Rucker glanced along the Road toward Rose Mary's milk-house with a kindly, though calculating matchmaking in her practical eyes.

"I'm kinder for Mr. Mat's," ventured the more sentimental Mrs. Poteet with a smile. He's as handsome as Rose Mary are, and wouldn't they have pretty—"

"Oh, show, I don't hold with no marrying outen the Valley for Rose May! She's needed here and ain't no go call to gallivant off to New York and beyond with a strange man, beauty or no beauty. Besides she's

ing her gift in."

"Gracious me, Miss Amanda, they didn't nothing ever happen to me like this little dress being going to one of my children. I am going to let him be named in it and then keep it in the box with my Bible where it won't be disturbed for nothing," exclaimed Mrs. Poteet in a tone of voice that was tear-choking with reverence as she took the dainty yellow little garment into her hand. "And to think how you all have worked yourself out a-looking for it!" she further exclaimed.

"Oh, me and Sister Vinny have had a good time a-going through things; we haven't seen some of them for thirty or forty years. We found the flannel petticoat Ma was a-making for me when she died over forty-five years ago. The needle is a-sticking in it, and I'm a-going to finish it to wear next winter. I'll feel like it is just a comfort for my old age she just laid by for me. I've got the little lace collar Ma's mother wore when she come over from Virginia, and it's in the very style now, so we're going to bleach it out to give to Rose Mary. Come on up to Ma's house with me and see it can't you? She's got mighty sore joints this morning, though Rose

## The Upward

### Brotherhood

"Oh his triumphant... forget his weaker... I am going to tell you... story. We all room... childhood days with... used to hear that it... over. This is a true... I am going to tell you... a time a long while... this incident occurred... years ago, I read the... and thrilled by the grandeur... by the paths that I... over again and again... passing it on to you... generate ourselves to... the light of such a triu... ace as is here told.

There is one person... ere heard of her ad... and love, and of who... of the Century has writte... invention, no discover... fruitful than the achieve... and, which has resulte... and circumvented the... of sense." There... ating person for whom... named at the Louisiana... and dumb and blind, yet... bliss obtained her deg...



## The Upward Look

### Brotherhood

"On his triumphant way man must not forget his weaker brother."

I am going to tell you, my readers, a story. We all remember in our childhood days with what a thrill we used to hear that it was to be a true story. This is a true one. I cannot begin in the orthodox way. "Once upon a time a long while ago, because this incident occurred not quite 10 years ago, I read the account in the Standard School Times, and was so thrilled by the grandeur and touched by the pathos that I have read it over again and again, and now am passing it on to you. We too who have so much to thank God for should consecrate ourselves to Him again in the light of such a triumph and message as is here told.

There is one person whom all who have heard of her admire, wonder over and love, and of whom the editor of the Century has written: "There is no invention, no discovery, more wonderful than the achievement of this deaf, which has vaulted, tunneled and circumvented the three-barred gates of sense." There was only one thing for whom a day was named at the Louisiana Exposition, and that is Helen Keller, born deaf and dumb and blind, yet who nevertheless obtained her degree at Rad-

cliffe College. That in itself is such a wonderful story. I will tell it some-time if you wish.

The day this story happened, she was the guest of honor at a Convention of the Instructors of her fellow-sufferers. She spent one day at the Fair, seeing and hearing with her wonderful, sensitive fingers, and on that day addressed a meeting of the deaf and the dumb and the blind. Only those were sure of admission, but for them the vast hall was not nearly large enough. Every inch of space had to do double duty.

As she was led up the aisle one

THE World will never neglect a man who is able to do things. The best that there is to be had will be his; and it will be given to him with joy. He deserves it. Make yourself deserving of good things therefore and they will come without fail.—Christian D. Larson.

motherly-looking woman, in charge of a blind boy, murmured in sympathy, "Poor child, poor child," and this was echoed in many another heart. Sad indeed it seemed, that she could not see that throng of expectant faces, honor, nor the music played in her greeted her coming.

She herself is very indignant at being called "poor." She wrote not long ago, "When I walk about my

chamber with unsteady steps, my spirit mounts sky-ward on eagle wings, and I view with unquenchable vision the world of eternal beauty. I am debarred from seeing and hearing only material things, which, after all, are only the symbols of the real things."

As she reached the platform that day and turned, one never saw a happier human face; not happy in a subdued patient sense, but brightly happy, radiantly happy. The deaf and the blind were before her; she knew that she could help them; and in this knowledge Helen Keller was glad.

At first she spoke of the practical aspects of the Fair, of the "giant locomotive which annihilates space, of the processes of irrigation which annihilates the desert." Then she passed to the processes of education, "which eliminate the darkness of the mind."

This was her text. "On his triumphant way man has not forgotten his weaker brother." As she uttered these words the face of the blind girl became luminous. She seemed the evangel of a glad true gospel of which, as she stood there reclaimed from helplessness, in her own personality, she presented the proof of what she proclaimed.

Her tones, which she herself has never heard, for she has learned to speak with infinite difficulty, are like the "plaintive notes of a mourning dove," and could reach only those very near. Beside her stood Anne Sull-

van, now Mrs. Macey, the beloved teacher from her seventh year, to whom she owes her emancipation. She reiterated the message, this noble woman, "whose years of tireless devotion also illustrate the truth of the declaration."

But her voice could not reach all. Then stepped forward the President of the Exposition, who repeated what she said. Those who saw the trio will never forget it, the frail, determined girl, the patient, noble woman, the kindly, courteous gentleman, each uttering the inspiring words: "On his triumphant way man has not forgotten his weaker brother."

How the blind listened for her voice, how the deaf watched the motion of her lips! But there were many, who had not yet learned the lip language. For them Alvin Cope was placed high up on the platform, who translated with swift repressive fingers all that was said. And there were still many, alas! who could neither see nor hear. Beside these sat some friend, who by the touch language, made them understand.

Thus the glad message was translated into all needed forms of expression—the lip language, the sign language, the touch language.

The blind in their darkness, the unhearing in their silence, grasping the inspiring truth, revived strength and hope and courage. My readers, to day I leave these words with you.

"On his triumphant way man will not forget his weaker brother."

—I. H. N.



Come again, Pie Time, and often. For wholesome, digestible "eats" —give us PIE.

At its very best wrapped in a FIVE ROSES crust.

Upsets Pie Prejudice without upsetting the Eater's insides—FIVE ROSES flour.

Great for Pie Crust—top and bottom.

And Puff Paste and Difficult Things.

Close-grained—melting—even textured.

Flaky, too, and crinkly—crisp yet tender.

Put into your bake things the rare nutlike sweetness of Manitoba wheat kernels.

All soppy with the rich red juice of the cherry—or lemon pie—or apple—or healthy

custard—meat, may be, or mince—

Put the FIVE ROSES "crust end" about 'em.

See the hungry wedges fade behind busy milk teeth.

At Pie Time—

Use FIVE ROSES.

# Five Roses Flour

Not Bleached



Not Blended



**WAKED UDDERS CURED IN 24 HOURS BY DOUGLAS' EGYPTIAN LINIMENT**

There is the opinion of Mr. Robert Harrison, a leading resident of Toronto.

"Having had wonderful success with Douglas' Egyptian Liniment on my stock, I feel it my duty to write you.

"Our cattle were troubled with caked udders, so bad that we thought they would lose the use of them. We applied this Liniment but twice, and in twenty-four hours we could milk without any trouble.

"When anything goes wrong in our pens or stables, this excellent Liniment is always called for, and never fails to give instant relief.

"I hope this letter will catch the eye of those whose cattle are suffering from caked udders."

Besides quickly curing this trouble, Douglas' Egyptian Liniment has proved its worth in both human and animal diseases, such as rheumatism, sciatica, neuralgia, sprains, burns and inflammations. It has been used with good results in all other complications, serious wounds, sores and bruises.

For sale at all drug stores. Free sample on request. Douglas & Co., Repulse, Ont.

**TENDERS.**

SEALED TENDERS addressed to the undersigned and endorsed "Tender for purchase of site and buildings, Scarborough," will be received at this office at 4:00 p.m. on Thursday, May 15, 1913, for the purchase of site and buildings thereon situated on south east corner of George Street and buildings thereon fronting on said street an approximate distance of 100 feet on the east side of George St. and 114 feet on the north side of the same. The party whose tender is accepted must deposit with the undersigned the sum of \$5,000 cash or payment as follows—\$5,000 cash in two equal instalments at intervals of 30 weeks each with interest of 5 per centum.

Each tender must be accompanied by an accepted cheque for \$100 on a chartered bank, payable to the order of the Hon. the Minister of Public Works, which will be forfeited if the person whose tender is accepted fails to enter into an agreement as herein mentioned.

Intending purchasers will receive all necessary information on application to the undersigned.

The Department does not bind itself to accept the highest or any tender.

By order, R. C. DESROCHERS, Secretary.

Department of Public Works, Ottawa, May 6, 1913.

**Well DRILLING MACHINES**

Over 70 sizes and styles for drilling either on or shallow wells in any kind of soil. The machines are made of heavy cast iron and are durable. Any machine can be made them, including. See our catalogue before sold out. Catalogue sent on request.

LIAMIS BROS., ITHACA, N.Y.

**BARB WIRE BARGAIN**

Some new Barb Wire only 30 per cent off. 30 lbs. new mixed sizes Wire Nails, per 100 lbs. Reg. 100 rolls of line Wire, 4 in. high, all No. 9, special, per roll. Other bargains. Free catalogue before sold out. Catalogue sent on request.

IMPERIAL WASTE & METAL CO., Queen St., Montreal.

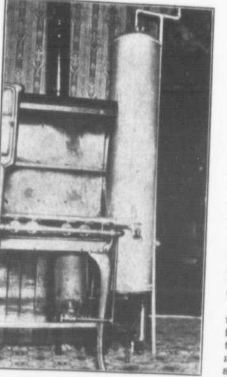
**CHALLENGE COLLARS**

Adapted for all sizes of Water-bugs, and is made of the finest material. All sizes. All styles direct from the factory.

PARLINGTON COLLARS are good, our CHALLENGE BRAND is the best

**A Well-Equipped Farm Home**

Elgin Co., Ont., has more to recommend it than its many herds of splendid pure-bred dairy cattle. In that county are some splendid farm homes that might well serve as models to farmers who are thinking of building a new home or of remodeling the old one. One of these model homes is that of L. H. Lippitt, a well-known Holstein breeder. One of the editors



**A Much Appreciated Convenience**

Herewith we have a hidden view in the home of L. H. Lippitt. Natural gas is used for cooking, lighting and heat.—Photo by an editor of Farm and Dairy.

of Farm and Dairy who visited Mr. Lippitt to inspect his fine herd of Holsteins so attracted by the farm home that he stopped to take several photographs and got a few notes on the household conveniences that he noted there.

The Lippitts are peculiarly favored in that they are near the natural gas region. The home is lighted with natural gas, and Mrs. Lippitt cooks and heats water with gas that costs them only 25 cents a thousand feet. This gas, by doing away with the use of coal, except in the furnace, does much to lighten the work of keeping the house clean, as well as of cooking.

A special arrangement in connection with the gas range takes the place of a water front in connection with the ordinary coal stove for heating water in the large boiler seen in the illustration herewith.

The water running over the top of the barrel tank located close to the eaves. There is thus no expense for pumping the wash water and, being soft, the water is that much more desirable for cleansing purposes. At the time of our visit Mr. Lippitt had not yet installed a bathroom, but a small room had been set aside in the new house, and as the running water, hot and cold, is already on hand, the bath will not be long in coming.

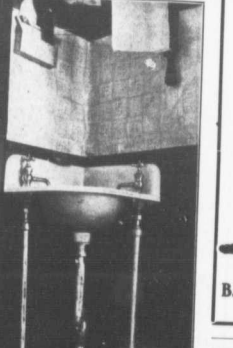
or fields can stop to clean up, instead of carrying all of the dirt on their feet and clothes into the house itself. Adjoining is a laundry room equipped with set tubs, running water and other conveniences to make the weekly washing lighter. Special rooms too are set aside for fruit and vegetables.

Mr. and Mrs. Lippitt have not spared money or care to make their home attractive, comfortable and convenient. "These things don't return much money," remarked Mr. Lippitt, "but we call them a good investment just the same."

**Vegetables as Medicine**

Fruit and vegetables are not only wholesome, but absolutely essential to man, says a writer in the New Zealand Dairyman. A half-century ago, no one, broadly speaking, knew of just what elements our bodies and foods were composed, nor could explain how the different nutritive ingredients of foods served their purposes in nutrition. Yet intuition, gleaned from experience, taught those wise women—our grandmothers—how to glean from the garden, the woodland, the meadows and orchards the seasonable foods and medicaments that enabled them to "slam the door on the doctor's nose" for years at a time.

The onion they regarded as one of the most beneficial of all vegetables fitted to cope with nearly all the ills that flesh is heir to. They deemed it as a great beautifier, clearing the skin, stimulating the liver, brightening the eyes, and ultimately clearing the breath. For colds, croup, and influenza, for diphtheria and pneumonia, for carache, insomnia and membranous croup, nervousness and debility, the onion stood and stands unexcelled with this further point in its favor that the onion treatment leaves



**Another Kitchen Scene**

This corner wash bowl, supplied with both hot and cold water, is one of several conveniences in the home of L. H. Lippitt, Elgin Co., Ont. Running water in the home is no longer a city advantage.

—Photo by an editor of Farm and Dairy.

none of the injurious after-effects of drugs.

In cases of anemia, cabbage, cauliflower, and spinach have proved distinctly beneficial, and the more modern tomato stimulates the action of the liver. Asparagus is beneficial in kidney troubles. Celery is useful in cases of rheumatism and neuralgia, and the carrot forms blood, and adds to the velvety smoothness of the skin.

**Bar Roofing**

**"Eastlake" Metallic Shingles**

Don't Forget when you want a good roofing to use "EASTLAKE" Metallic Shingles. They protect you from Fire, Lightning and Leaks. Made of only the best zinc-coated steel sheets.

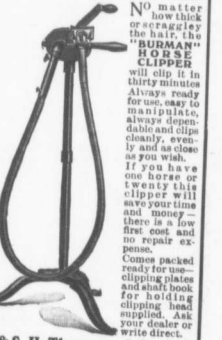
Our patent interlocking side joints make an absolutely watertight, rust-proof roofing.

"EASTLAKE" Metallic Shingles never need repairs. Write us for booklet. 701

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Prof. Eckles, the author of this book, is a noted dairy authority. He has the practical experience, together with extensive training. For over 15 years he has had charge of a herd of from 30 to 50 cows, many of them being high producing animals. For some years he was professor of Dairy Husbandry at the University of Missouri.

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Polished steel body—unbreakable doors and castings—beautifully nickel-plated.

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### Rose of Old Harpeth

(Continued from page 18.)

And it was here that Everett found him a few minutes later as he walked rapidly up the milk-house path and stood in the barn door in evident hurried search for somebody or something.

"Hello, General," he said with a smile at the barrel full of sleepers at Stonie's side, "do you know where Rose Mary is?"

"Yes," answered the General, "she are in her room putting buttermilk on the five rockles that comed on her nose when she hooed out in the garden without no sunbonnet. I found 'em all for her this morning, and she don't like 'em. You can go on in and see if they are any better for her. I ain't got the time to fool with 'em now."

### Patterns We Can't Deliver

We would again call the attention of readers of the Household Department of Farm and Dairy to the necessity of exercising care when ordering patterns. Orders are continually coming into the office that we are unable to fill without considerable trouble and delay. Our patterns are sent in without any remittance enclosed. Others neglect to state the number of pattern or the size they will require, and still others forget to sign their name or state post office. Remember when sending in orders in the future that we must have your name and address, the number and size of pattern desired and the remittance enclosed.

"Not for worlds!" exclaimed Everett as he sat down on an upturned peck measure in close proximity to the barrel. "Have you decided to have Mrs. Potest and Mrs. Sniffer swap their puppies, Stonie?" he further remarked.

"No, I didn't," answered Stonie with one of his rare smiles which made him so like Rose Mary that Everett's heart glowed within him. Stonie was, as a general thing, as grave as a judge, with something hauntingly, almost tragically serious in his austere young face, but his smiles when they came were flashes of the very divinity of youth and were part of a strange incarnation of the essence of Rose Mary's cousinly loveliness. "He was crying because he was by himself and I brought him along to wait till his mother came home. He belongs some to us, 'cause he's named for Uncle Tuck, and I oughter pester with him same as Tobe have to. It's fair to do my part."

"Yes, General, you always do your part—and always with Mr. Potest," said Everett, as he looked down at the sturdy little chap so busy with his long strings, weaving them over and over slowly but carefully. "A man's part," he added, "two serious eyes were raised to his."

"In just a little while I'll be a man and have Uncle Tucker and Aunt Viney and Aunt Amanda to be mine to keep care of always, Rose Mamie says," answered Stonie, in his most earnest and earnest tone, as he began to see the end of the long strings draw into his weaving of the cracker.

"What about Rose Mamie herself?" asked Everett softly, his voice thrilling over the child's name for the girl with her forgotten tenderness.

"When I get big enough to keep care of everything here I'm going to let Rose Mamie get a husband and a heap of children, and Mr. Potest—but I'm a-goin' to make 'em behave themselves better'n Tobe and Maggie and the rest of 'em do. Aunt Viney says Miss' Potest spares the rod too much, but I'll be Rose Mamie's children if they don't mind her and me."

(Continued next week.)

## SPECIAL PATTERN SERVICE

We realize the great interest that all of our readers take in the new spring styles, and have therefore made arrangements whereby we will be able to give many more patterns in Farm and Dairy than usual during the next few weeks. We will illustrate many of the attractive styles. Should you wish patterns other than you see in Farm and Dairy from week to week with us, or wish to order best of our best, we will be glad to attend kindly give name and address, size and number of pattern. Order Price 15c. each. Address Pattern Dept., Farm and Dairy, Peterboro, Ont.

### THREE-PIECE SKIRT, 7513

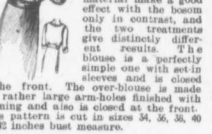


The simple skirt with just a little ruffery like of the newest and best liked. This one is with the fashionable wide back and can be gathered at the upper edge or dart fitted. It consists of only three pieces and the fronts are overlapped. For the draped effect, the left front is cut longer than the right, but the right front is wanted, so the two are cut after the same model.

For the medium size, 6 1/2 yards of material 27, 5/8 yards 36, 4 yards 44 inches wide.

This pattern is cut in sizes from 22 to 32 inches waist (true).

### FANCY BLOUSE, 7521



What is known as the "blouse" is extremely fashionable and this one is most attractive. In the illustration, it is made of plain material with a large bust and that combination is extremely well suited, but both blouse and overwaist of one material make a good effect with the bosom only in contrast, and but whether the blouse give distinctly different results. A blouse is a perfectly simple one with set in sleeves and long trimmings and also is closed at the front.

The pattern is cut in sizes 34, 36, 38, 40 and 42 inches bust measure.

### SEMI-PRINCESS DRESS FOR WOMEN AND SMALL WOMEN, 7534

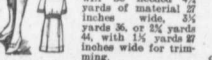


Here is a pretty, dainty frock adapted to all materials and closed at left of that can be made in lingerie style. In addition to the treatment illustrated, the skirt could be made from something or bordered with one straight piece.

For the 16 year size 7 1/2 yards of material 27, 4 1/2 yards 36, 3 1/2 yards 44 inches wide with 24 yards of lace banding.

This pattern is cut in sizes for girls from 14, 16 and 18 years.

### GIRL'S DRESS IN RUSSIAN STYLE, 7539



The simple frock that is made in Russian style and closed at left of the front is being much worn this season and one of the advantages of being practical and so fashionable. This one is especially well adapted to masculine materials, for it can be handkerchiefed and accordingly, and it means only a little extra for the making. There is a simple blouse and a 3 1/2 yards of material.

For the 15-year size will be needed 4 1/2 yards of material 27 inches wide, 3 1/2 yards 36, 2 1/2 yards 44, with 1 1/2 yards 27 inches wide for trimmings.

This pattern is cut in sizes for girls of 10, 12 and 14 years of age.

### CHILD'S OVERALLS, 7519



Little children always like to see overalls. They are simple and easy to make and so usual and attractive in fact that they are really patterned well as useful. They are a material made for such purposes, but still galatea, gingham and linen are a very way appropriate for the material. It is sure to be to the child's heart.

For the 4 year age will be needed 1 1/2 yards of material, or 3/4 inches wide. This pattern is cut in sizes for children from 2, 4 and 6 years of age.

### FOUR-PIECE SKIRT, 7515



Skirts in talbot style are necessary ones in general use. Here a model adapted to a great many different materials, the fashionable silks, to pongee to loop and and similar w material. A great tendency just now to put the skirt on the upper edge, putting a little fullness at the waist, which is made in the olden style.

For the medium size yards of material 27 inches wide, 2 1/2 yards 36, or 2 1/2 yards 44. This pattern is cut in sizes 22, 24, 26, 28 and 30 inches waist measure.

### GIRL'S DRESS, 7516



Mothers will be glad to like this simple, dainty, clean-cut dress. It is made of plain material, comes and easy finishing, makes a very simple and extremely easy dress. In the illustration shown made of plain material with long trimmings and the treatment can be applied to the pattern skirt as well as the tucked one.

For the 12 year size 2 1/2 yards 30 inches wide, 2 1/2 yards 36 inches wide, 2 1/2 yards 44 inches wide, 1 1/2 yards 44 inches wide.

This pattern is cut in sizes for girls from 6 to 14 years.

### SEMI-PRINCESS GOWN, 7535



Every girl will like this gown. It is made with a simple and elegant design. The pattern is cut in sizes for girls from 14, 16 and 18 years.

This pattern is made in sizes M, 40 and 42 inches bust measure.

## Our Veterinarian

CEMENT FLOOR.—I have which is all mentioned in which seemed to dip a lot when I put six or 10 manure in the stall when pig would be apt to get into it. It is most possible to infect the stall and that you suggest, hence the danger of infection plan could be to put a wooden floor of plank

LIMP JAW.—A young pig had a limp paster was very hard, and in abundance it broke, but did not get much smaller. How is it? H. M.

This is limp jaw. Growth of potatoes three times in excess with one drain the dose by one-half until she refuses food and runs from eyes and skin becomes scurfy.

What is the cause of this?

What is the cause of this? Mothers will be glad to like this simple, dainty, clean-cut dress. It is made of plain material, comes and easy finishing, makes a very simple and extremely easy dress. In the illustration shown made of plain material with long trimmings and the treatment can be applied to the pattern skirt as well as the tucked one.

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**Our Veterinary Adviser**

**CEMENT FLOOR**—I have a box stall which is all cemented. I had my mare seem to slip or foal last year. The colt ran in the stall to prevent this slipping. It is not possible to properly disinfect the stall under the conditions that you suggest, hence there would be danger of infection. The better plan would be to put in a temporary wooden floor of plank or inch lumber.

**LUMP JAW**—A young cow two months ago had a lump gather on her jaw. It was very hard and in about three weeks' time it broke, but did not run very much or get smaller. How should I treat it?—H. J. M.

This is lump jaw. Give her iodine of potassium in small doses daily. Commence with one dram doses and increase the dose by one-half dram daily until she refuses food and water, fluid runs from eyes and mouth, and the skin becomes scurfy. When any of

**UDDER PARTIALLY INACTIVE**—A milk cow freshening two weeks ago was taken sick with a heavy cold. She had been milking from 40 to 50 lbs. a day. She got over her cold, but only milked 30 lbs. Her udder is very full, quite as full as when she was milking 40 lbs. It is not so wrong—subscriber.

As a result of the sickness the activity of the udder has been lessened. It is probable that it will gradually return, but in some cases it does not. All that you can do is feed liberally on milk producing food, massage the udder well frequently and milk regularly.

**Lambing Time Hints**

To prevent ewes from disowning one of their lambs in case of twins—a trouble with which so many flock-owners have to contend—it is suggested that small pens, of two or three, or four feet by five feet, say four by four, or four by means of little hurdles, be partitioned in this enclosure for a day or two, until the lambs have become thoroughly acquainted with their mother. They may then be removed to make place for other ewes.



**A Western Idea of a Dual Purpose Cow**

These symptoms become well marked since giving the drug. If necessary treatment may be repeated in two months.

**UNBIRTHY COW**—I have a cow that calved early in January; she was fat, but about two weeks after she freshened noticed that she had very watery milk and she lost her appetite for hay. She became very poor and later there was some issue from her nose, but this did not run very long. On turning her out I found her very weak and slightly short-sighted. I kept her in a roomy box stall, setting out hay (chop and barley), which she ate ravenously, but will not eat much timothy hay with the good she has seen it is remedied.—R. B. Norfolk

Mix equal parts powdered sulphate of iron, gentian, ginger and nuxomica, and give her a tablespoonful three times daily. Feed well on grain, bran, raw roots and good hay and keep comfortable.

**BLOODY MILK**—I have a cow that is milking in a few days. I have tried her tests and find there is nothing in it in good blood. What is the cause?—I have a cow that is milking in good health. I have been feeding her hay, chop and chop, consisting of oats, barley, when some of the milk was white. She eats well. Kindly advise before that she had a cow test before she freshened.—O. J. Northumberland, Ont.

Leave her alone until she calves and then if the milk still be bloody give her one ounce tincture of iron in a pint of cold water as a trench twice daily until blood ceases to appear. It is due to weakness and rupture of one of the small blood vessels of the udder. In most cases it yields to treatment, but is liable to recur with- appreciable cause.

Every ewe should be examined twice each day to ascertain whether the lambs take all the milk, or whether they use only one side of the udder. If there is a surplus, it should be re- maked in order to keep the udder from becoming too full. It will be wise to examine the udder of each ewe each day for at least three days.

Ewes with very large udders should be fed lightly on grain for about three days, so as to prevent milk fever. At this period they should be fed well to continue their milk flow. So that nice, plump, fleshy lambs of the kind that bring good prices may be raised. And don't be afraid that milk will be castrated when one to two weeks old. All lambs, male or female, should be docked. When both these operations are performed, the lambs will bring a higher market price. However, it is not a good plan to perform both operations on the same day; a week apart is better.—Frank Kleinheins in Live Stock World.

Many an unprofitable cow would show up better before the scales and Babcock test did she get enough feed out of which to make milk. Don't be afraid of the cow that is a big eater. And don't buy a cow recommended as a small eater.

I received my pair of pure-bred White Wyandotte fowls for raising a club five or six new yearly subscriptions to Farm and Dairy from Mr. Charles N. Klink of Elmira, Ont. I must say that they certainly are a fine pair. Everybody who has seen them is in the same opinion. I would not want to part with them.—Thomas Bryna, Lambton Co., Ont.

**HOLSTEINS**  
**LYNDEN HERD**

High Testing Holsteins for sale. One Bull, 1 year old. Sire's dam, Leta Glaeser, bred, bred, bred, 7 days. Dam a richly bred, bred, bred, 2-year-old. Price \$85. Also Bull Calves from large record dams. Also 160 and upward lbs. Also two 2-year-old Heifers in Milk. Write or come and see. S. LEMON, LYNDEN, ONT.

**HOLSTEINS**  
**Two Holstein Bulls**

Fifteen months old, one from a twenty-one-pound cow. Good individuals. R. F. HICKS, NEWTON BROOK, YORK CO.

**LAKEVIEW HOLSTEINS**

We are now testing some of the daughters of Count Hensford Fayne De Kol, and they are running from 150 lbs. with first calf to 20 lbs. with young bulls from these heifers we are offering at half their value, in order to make room. They are sired either by Dutchland Colantha Sir Roma, Come Bull and the dam of these. E. F. OSLER, BRONTE, ONT.

**Orville Holstein Herd**

Bulls of serviceable age all sold. If you want them from here we would advise you to buy young. Only two Colantha Sir Abnerk and one Sir Roma calves left. Both are by Dutchland viduals 4 months old. LAIDLAW BROS., Aylmer, Ont.

**LAKESIDE DAIRY AND STOCK FARM**

Present offering, Bull Calves from Record of Performance dams; also a few females. W. F. BELL, BRITANNIA HEIGHTS, ONT. Ottawa Bell Phone.

**CAMPBELLTOWN HOLSTEINS**

This week we are offering Bull Calves, born April 2nd, 1913. A dandy, nearly white in color. Yeman Postle and out of a good daughter, one of them now has 3 A. R. O. daughters, one of them over 250 as a three-year-old. Price, \$50.00 F.O.B. Tillsonburg, Ont. R. J. KELLY, TILLSONBURG, ONT.

**GRAGELAND HOLSTEINS**

Herd sires, 3 near-record dams, 21 lbs. in 7 days. 62 lbs. 4th, record of 56.15 lbs. in 7 days. 166 lbs. in 30 days, and nearly 20 lbs. in 7 days eight months after calving—largest record in Canada. Also Females, any age, excepting heifer calves. J. W. STEWART, LYN, ONT.

**Lyndale Holsteins**

We are now offering Bull Calves from 1 month to 7 months old, all from official record dams and sired by some of the greatest bulls in Canada. BROWN BROS., LYN, ONT.

**HOLSTEIN BULL CALF FOR SALE**

First-class Calf, 15 mos. old. Also Heifers, different ages, cheap for quick sale. J. O'CONNOR, Campbellford, Ont. Woodlawn Stock Farm

**RIVERVIEW HERD**

3 Young Heifers, from 2 to 12 months, sired by King in Milk, Walker, whose sister, 3 near-record Holsteins, 20 lbs. in 7 days, and two sisters of his from R.O.P. dams. P. J. SALLEY, LACHINE RAPIDS, QUE.

**HET LOO STOCK FARM**

Present offering a son of Minnie Lande and Paul Dekol Jr. Blood of King Sire and daughter of Paul Beta. Write for price.

**HET LOO STOCK FARM, VAUDREUIL, QUE.**

Dr. L. de L. HARWOOD, Proprietor GORDON H. MANHARD, Manager

**Breeder's Directory**

The Feeder's Corner is for the use of our subscribers. Any interested are invited to send questions or send items of interest. All questions will receive prompt attention.

**YORKSHIRE FIGS, all ages, either sex. Choice Fries, 10 lbs. for service. Also Bows of all ages, bred and heavy with pig—H. O. Benfield, Woodstock, Ont.**

**FOR SALE—2 Sons of King Payne Sire's, bred from R.O.P. cows. Also three—Clyde Fillies and 3 Stallions. Yearlings—E. M. Holby, Manchester, Ont.**

**FOR TANKWORTH SWINE—Write John W. Todd, Corsham, Ont. R.F.D. No. 1.**

**HOLSTEINS**  
**HOLSTEINS FOR SALE**  
**FERRINDALE STOCK FARM**  
3 Good Korndyke Bulls left, also 1913 Calves, which will compare our last lot of Korndyke K. Schillard's whose heifers are doing nicely. Write for extra good grade heifers for sale. This lot is mostly on from milk on. Write your needs in and in fine condition. Will freshen on from milk on. Write your needs FERRELLER BROS., MT. ELGIN, Ont. Bell Phone 167 R. 12. C.P.R. Station.

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**LYNN RIVER STOCK FARM**

We offer for sale Cows, Heifers and Heifer Calves, also one Bull, and our senior and we think we can please you both as to breeding and price. J. ALEX. WALLACE Lynn River Stock Farm - Simcoe, Ont.

**North Star Holsteins**

Bulls bred for service, from R.O.M. dams, sired by a son of Najoze De Kol 4th, record of 56.15 lbs. in 7 days, 166 lbs. in 30 days, and nearly 20 lbs. in 7 days eight months after calving—largest record in Canada. Also Females, any age, excepting heifer calves. J. W. STEWART, LYN, ONT.

**OXFORD DISTRICT**  
*The Holland of North America*

Is the place to buy Holsteins of quality. The Third annual sale will be held in the city of Woodstock on March 25th, 1914. Full list of breeders and stock addresses sent on application to: R. J. KELLY, SECV, TILLSONBURG, ONT.

**Purebred Registered HOLSTEIN CATTLE**  
**The Greatest Dairy Breed**  
**AND THE FINEST MEAT PRODUCE**  
Holsteins Frisian Assn. Box 146 Tillsonburg V

**BROOKSIDE OFFERS FOR SALE**

A No. 1 Bull, 18 mos. service. Dam, Fries Korndyke Friesette, at 2nd, 3rd test. Sire, 20 lbs. in 7 days. 166 lbs. in 30 days, and nearly 20 lbs. in 7 days; sister and sister over 20 lbs. in 7 days; sister and dam selling for brood from Sire. Royal Hensford's son. For full particulars address: R. E. HAGERMAN, R.M.D., Harold, Ont.





OUR FARMERS' CLUB

PRINCE EDWARD ISLAND

KING'S CO. P. E. I. CARDIGAN, May 5.—The last week in April we have had what we call a hot spring. Land is drying well and has turned cold. Land is drying well and has turned cold. Land is drying well and has turned cold.

ONTARIO

BRUCE CO. ONT. HEWORTH, April 24.—Spring is opening up earlier than usual and the ground is hot and ready for sowing. The heavy wind on Good Friday did considerable damage. Several barns were blown down.

HASTING CO.

SIDNEY CROSSING, April 23.—Severe storms have passed for the week. Working fine again and seeding in full.

OIL SPRINGS

May 3.—At a meeting held today the corn growers of this section organized the Lambton and Oil Springs Corn Growers' Association.

LAMBTON CO.

Oil Springs, April 23.—The corn growers of this section organized the Lambton and Oil Springs Corn Growers' Association. The meeting was held at the home of Mr. Moorehouse.

LAMBETH, APRIL 27

The weather and the seeding is being rubbed splendidly. The grass is coming up well. Wheat is somewhat spotted but will pull well.

WOODSTOCK, APRIL 23

We are having great deal of rain. We had a very heavy shower on the night of the 23rd. It was almost continual with very heavy rain.

PERIS, MAY 8

The weather has been so beautiful that the pasture trees, shrubs and flowers are all well advanced. The farmers are taking full use of their time.

ALBERTA

RED DEER DISTRICT, ALTA. RED DEER, April 24.—Farmers in the north province are busy seeding. Cows are ideal—plenty of moisture in the land and bright, warm weather.

ditions are ideal—plenty of moisture in the land and bright, warm weather. Dairy products are in great demand.

WHAT THE DOMINION GRANGE IS

W. C. Good, Master, Dom. Grange. At the last annual meeting of the Dominion Grange, the following resolutions were adopted.

The work of the Grange is mainly educational and social, with commercial operation as a side line. The Grange is a voluntary organization of farmers.

The Grange is a voluntary organization of farmers, organized for the purpose of promoting the interests of the farming community.

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AYRSHIRES

Burnside Ayrshires

Winners in the show ring and dairy tests. Animals of both sexes, imported or Canadian bred for sale.

SUNNYSIDE AYRSHIRES

Imported and Home-bred, are of the choicest breeding of good type and have been selected for production.

IF You Want a Yearling Ayrshire Bull

Out of a large-tented R. O. P. dam, closely related to one of the heaviest milking strains in Canada.

AYRSHIRE CATTLE AND YORKSHIRE PIGS

For Sale—Ayrshire Cattle, Yorkshire Pigs. We are offering a number of fine Ayrshire Cattle and Yorkshire Pigs.

AYRSHIRES

TANGLEWYLD AYRSHIRES

3 YOUNG BULLS (Sept. and Oct. 1912). R. O. P. of dams as Spear-Older: Alaina, 3274, 4.27 lb. milk, 4.03 lb. fat.

RAISE THEM WITHOUT MILK

STEELS, BRIGGS Seed Co. Ltd., Toronto, Ont.

TROUT BUN AYRSHIRE BULLS

I offer four particularly choice Ayrshire Bulls for service, all from high record performance dams, and sired by Holohouse Pilot (Im).

LAKESIDE AYRSHIRES

We are offering a number of fine Ayrshire Cattle of different ages, sired by "Horch" or "Eck" (Im) (Imp) No. 25,879.

Ayrshires and Clydesdales

AT AUCTION The Second Annual Sale under the auspices of the District or Beauharnois Live Stock Breeders' Association, will be held at

100 Head of Ayrshires 10 Head of Clydesdales

Send in your name for a catalogue. GEO. BRYSON, Secy. ORMSTOWN, QUE.

FAIRVIEW FARMS LTD

Offers Sons of PONTIAC KORNDYKE ready for service in the near future or younger, sons and daughters to be officially tested average better than any other.

FOURTH ANNUAL TRUNKS AT STOCK SHOW

Union Stock Yards, Toronto Saturday and Monday, Dec. 6 and 8, 1913 Over \$3000 Cash Prizes For Cattle, Sheep, Lambs and Hogs

For Premium List and Further Particulars, address C. F. TOPPING, Secretary Union Stock Yards, Toronto, Ont.

THE  
**Woodcrest-Oakland Sale**  
 Comprising  
**100 Head of**  
**Holstein-Friesians**  
 Of the Producing Kind

Both the Woodcrest and Oakland herds are under government supervision, and hence are eligible for shipment into the Dominion without a retest.

**THE PRIMARY OBJECT** of the Sale is to dispose of the increase of two great herds. The offerings consist of breeding stock, not trading stock—animals that in their new homes will add to the reputations of the establishments that now stand back of them.

Among the number are daughters of Homestead Girl De Kol Sarcastic Lad; Pietje 22d's Woodcrest Lad; Pietje 22d Son; King Segis Hengerveld; Woodcrest Johanna Pietje; Tidy Abberker Prince; Changeling Butter Boy; Woodcrest Princess Lad; Count Hengerveld Johanna Fayne; Cornucopia Pietje Lad; and others of nearly equal quality.

The daughters of the above sires number about fifty.

Oakland Farm enters sixteen yearling daughters of Urmagel Segis, who was by Sir Gelseche Walker Segis and from a 22-lb. 3-yr.-old daughter of De Kol Hengerveld Burke and Urmagel-sche Ad. (31.24 lb), the only 31-lb. cow having two 31½ lb. daughters. The dams of twelve of these heifers were by a son of Aaggie Cornucopia Johanna Lad Jr. All will be bred before the sale to the wonderful sire, Sir Korndyke Pontiac Artis. Four daughters of Mooie Fayne De Kol, one a 24-lb. 3-yr. old with a 100-lb. 30-day record; another out of a 30-lb. dam. Three daughters of De Kol Hengerveld Burke.

All the animals in the sale are young—five years old or under, except three cows, two six years, and the other eight years old.

THE TWO HERDS REPRESENTED:

**Woodcrest Farm**      **Oakland Farm**  
 Rifton, N.Y.              Weedsport, N.Y.

**Remember the date, May 28th, 1913**

Place of Sale: Rifton (R. R. Station, Rosendale, on Walkmill Valley Branch of West Shore R. R., leaving main line at Kingston.)

**Auctioneers—Kelly and Haeger**

For catalog or other information, address the Sale Manager,

**E. M. HASTINGS, LACONA, N.Y.**

N. B.—When writing for catalog, be sure to mention Farm and Dairy, and state whether or not you expect to attend the Sale.

**How to Prevent "Running Out" in Potatoes**

Every farmer is perfectly familiar with the fact that if a good herd of Shorthorns falls into the hands of a stockman who feeds them as the average farmer feeds his stock, there will be a rapid decline, in each successive generation, from the former high standard of the herd. Every farmer is also aware of the fact that if a stockman, who has brought a herd of Shorthorns up to a high standard of perfection, neglects the selection of the best animals for keeping up or improving his herd, it will "run down" rapidly from generation to generation. Just as surely as these two factors—namely, good feeding and selection—are necessary for keeping a good herd of Shorthorns from "running down," so are they necessary for keeping a farmer's potato-seed stock from running out.

**AN IDEAL STANDARD YIELD.**  
 The ideal feeding standard for potatoes should be such as will produce not less than 300 or 350 bushels per acre, and preferably more. This requires a soil that is, first of all fertile, and, secondly, in a good condition for the roots to gather plant-food from. In addition, the plants must not be over-run with weeds and the bugs must not be allowed to get away with the crop. The fertilizing can be accomplished by rotation of crops and manuring. A rotation that supplies a clover sod or sod of clover and timothy, one or two years old, is generally best for the potato crop; the only exception being that found in some cases where some other crop is grown on the sod, to be followed by potatoes. The manure can be applied to the sod at any time, during the year preceding the potato or other crop, it may be practicable. Liberal applications should be made, usually 10 or more good sized loads an acre. If this cannot be done for the entire potato-field, it should be done on enough land to supply from two to five times as many bushels of seed potatoes as will be required to plant the next year's crop.

**SEED BED AND CULTIVATION.**  
 The second requirement for good feeding can be supplied by first preparing the best possible kind of a seed-bed, and second thorough cultivation of the crop. In preparing the seed-bed, many plow twice, first about four inches deep in the fall, and again, seven or eight inches deep, in the spring. This method saves worthy of credit. At any rate, the land should be plowed deep, preferably eight inches. This should be followed by a thorough working up of the seed-bed; to be followed by a liberal use of the harrow, weeder and cultivator, as needed during the season. The benefit to be obtained from the proper feeding and care of the potato crop is greatly increased by the selection of the tubers possessing the most vitality for seed potatoes. Even though the crop as a whole may have been well fed, and the yield large, there is much difference in the way in which certain tubers acquire the vitality that results from liberal feeding.

**VITALITY IN POTATOES.**  
 The sign of vitality in a potato is, most of all, the plump form, as considered with reference to length. Rural New Yorkers and similar varieties should be round and more or less flattened, without the least elongation. The signs of degeneration in potatoes are as follows: (1) elongation of form as compared with the shortest, plumpest form that can be selected for the variety, often accompanied by more or less tapering ends, a taper toward the "seed end" being worst; (2) eyes more numer-

ous than usual, especially in badly-degenerated tubers; and (3) an increasing proportion of small potatoes.

The foregoing principles of selection may be applied to any variety of potatoes. Degeneration is the same for nearly all of them. A few varieties do not show the elongation, and the eyes are in the eyes, that are generally found along with degeneration—until they are almost completely run out. In such cases, the proportion of small potatoes is more important than ordinarily. Small potatoes should never be used for "seed." They are very likely to be the most degenerated seed stock that could be planted.

**Record Centres and Burglars**  
 C. F. Whitley In Charge of Records, Ottawa.

The marked increase of interest in cow testing is one of the good signs of the times. New associations are being organized and new dairy record centres have been established, one at Alexandria and North Gower, Ont., Shawville and St. Henedina, Que., Scotchburn, N. S., and Sussex, N. B.

With a simple record system, there is no valid reason why a dairy

**Have You Something to Sell?**

Did you ever hear the story of a boy who was sent to market with a sack full of rabbits, lingering around town all day and coming back without selling them? When asked by his mother why he had not sold the rabbits he said no one had asked him what was in the sack.

Are you as a breeder of pure bred live stock and having surplus stock for sale, like this little sale, which it will pay you when you have pure bred stock to sell? Better tell the people through Farm and Dairy advertising columns what you have or sell.

You can sell your surplus pure bred stock for all advantage through your advertisement in Farm and Dairy. Your ad in these columns will do more than 16,000 possible buyers. It will cost you only \$10 to \$15 per inch for the space you take each issue.

So you open your "sack" and start in to tell Farm and Dairy readers about the merits of the stock you offer for sale. Better fix up the ad tonight while you are thinking about it. Mail it to us and start in with next issue.

farmer should harbor the type of cow that is reluctant to pay her way; with systematic records of the yield of each herd in which each individual pays good profit. To increase the profit per cow means to increase the interest of farm life and the real joy of living. Would you not rather keep cows giving \$30 profit than those giving only one dollar profit?

Milk record forms, we may remind our readers, are still supplied free of application to the Dairy Commission, Ottawa: state in your letter whether you want forms for keeping daily weights or only three days a month. Send for record forms and insure yourself against the modern burglar cow that steals the credit and the profit made by the good cow.

The cosy homestead with its setting of trees seen in the heading of page four of last issue is the home of W. A. Oswald, Two Mountains C. Que., a competitor in Farm and Dairy's Prize Farms Competition. The Holstein heisen in the leading on page seven was photographed by an editor of Farm and Dairy on the farm of Samuel D'ekie and Sons, Gloucester Co., N. S. This herd has won championships in the dairy tests at the Amherst Fair more than any other herd.

**WHAT system**

of construction? When will the work commence? Such general questions are being turned over in couples with this question, how is the improvement going? The following paragraph gives answers to questions for no answers framed. It is known the Province, throughout is committed to the proved highways, but yet been established, administration created and specifications 1. The construction will be met and the matter will be until then. The out far from speculative, about what the public think there have been Something of the coming can therefore

**LET THE PRO**

The future road developments will depend upon themselves. The road in each locality will depend upon what it wants it. It is the province that is to present an investigation which will devote the making a province wide, which will develop the high way problem or this body of solutions from various provinces, who will be given to present the requirements of their territory, this merit plan scheme. Roads to extent a matter of local one central body would be the lack of properly presented for all attention. It will run with each municipality its own case.

The province has already considered advances of 1901 for the Improvement ways. By this Act certain roads, selected according to requirements, are assumed to be on approval of the Government grant of extended for construction counties are now operating and over 240 miles of construction last year. The length of county construction is over 3,600 miles for highway development undoubtedly include the this Act which have been fully administered, however, may be made stance, in the amount available from the province will promote the. An increase in the of a third to a half has long of in municipalities that certainly proved that road building. Another has been the subject of ifation is that of province in the maintenance of roads before there has been any for upkeep, and the road recently suffered. Both of increased assistance in of inaugurating a system are to be taken over in near future, and some kind pronouncement will be them. The selection of roads proved will be left for approved the municipalities forthcoming Commission of Department. Estimates ready been made, however

THE ROAD OUTLOOK IN ONTARIO

WHAT system of roads will Ontario adopt? What standards of construction will she assume? When will the work of construction commence? Such are some of the general questions that users of roads are turning over in their minds, and coupled with this is the personal question, how is the scheme for road improvement going to affect me? The following paragraphs do not pretend to give answers to these questions for no answers have as yet been framed. It is known definitely that the Province, through its Legislature, is committed to the extension of improved highways, but no fund has as yet been established, no machinery of administration created or no plans and specifications have been drawn. The council will meet during recess and the matter will not be taken up until then. The outlook, however, is far from speculative. Much is known about what the public want, and what they want they have a way of getting. Something of the improvements forthcoming can therefore be foreshadowed.

LET THE PEOPLE SAY

The future road development of Ontario will depend upon the people themselves. The treatment accorded each locality will depend on what that locality wants, and on how badly it wants it. It is the avowed intention of the Provincial Government to appoint an investigating body, upon which will devolve the responsibility of making a province wide study of the whole highway problem. Among other things, this body will hear deputations from various parts of the province, who will be given an opportunity to present the conditions and requirements of their respective districts as meriting a place in the general scheme. Road work to so great an extent a matter of local concern that one central body would find impossible the task of properly allocating and prescribing for all the roads needing attention. It will remain, therefore, with each municipality to make out its own case.

The province has already made considerable advancement under the Act of 1901 for the Improvement of Highways. By this Act certain systems of roads, selected according to traffic requirements, are assumed by the counties, and approval of the Provincial Government grant of one-third is extended for construction. Twenty counties are now operating under this Act, and over 240 miles of road was constructed last year. The total length of county systems under construction is over 3,600 miles. Future plans for highway development will undoubtedly include the provisions of this Act which have been so successfully administered. Amplifications, however, may be made as, for instance, in the amount of the grant available from the province.

WILL PROVINCIAL GRANT INCREASE? An increase in the assistance from a third to a half has long been talked of in municipalities throughout the province, and such an increase would certainly prove a great stimulus to road building. Another question that has been the subject of increased agitation is that of provincial assistance in the maintenance of roads. Heretofore there has been scant provision for upkeep, and the roads have consequently suffered. Both the questions of increased assistance in construction and of maintaining a system of maintenance are to be taken up in the very near future, and some kind of official pronouncement will be made upon them.

The selection of roads to be improved will be left for settlement between the municipalities and the forthcoming Commission of the Highway Department. Estimates have already been made, however, relating

in the deduction that an improvement of approximately 17 per cent of the roads would accommodate over 80 per cent of the traffic. The system selected therefore will naturally conform to the highways incorporated in this percentage. It must be noted, however, that the 17 per cent referred to is not composed of the sum of certain definitely assigned roads, and there will be room for considerable discrimination within the bounds of each locality as to which two out of three roads or which one of two roads, etc., is best suited to become a leading route.

HIGH STANDARD OF CONSTRUCTION The matter of construction will also come up for settlement. About this, however, little can be said now beyond stating that the Commission will, in addition to its other work, go into the matter of road building material in the province, and that any extension of government assistance and supervision will involve an insistence on certain standards of construction as in the present Act. Of course the structure of any given road depends upon a number of considerations, including traffic requirements, the character of the country through which it passes and the funds available for the work.

When we come to the question of commencement, that will depend on the individual locality. The policy of the Provincial Government in the past has been to leave the initiative in the hands of the municipality. After all, the roads are primarily for the municipalities, and improvements therefore should be optional with them. The people are not to have the roads thrust upon them. They must show the way.

Pointers by Mr. Grisdale .

In deciding the crops to grow on the dairy farm, the points to bear in mind are succulence, variety in the ration and quality or palatability. The chemical composition may be exactly the same in two rations, but a cow will give 10 to 20 per cent more on the ration she likes. Hence the wisdom of providing for variety in the ration.

It is well to count on growing one-quarter to one-third more feed than you will need.

Don't say, "I guess I will have corn in this field and oats in that," but have a regular cropping system.

Where there is much rough land on the farm I would take the arable land and follow there a three-year rotation. The crops I would grow are corn ensilage, a small amount of roots and grain seeded down.

Here is my seeding system: Six pounds timothy; two pounds alfalfa; 10 lbs. red clover and six to eight pounds of alfalfa. It may seem heavy but it pays.

Corn ensilage should be the staple crop on every farm in Ontario to-day, in the greater part of Quebec, in New Brunswick and Nova Scotia, but possibly not in Prince Edward Island.

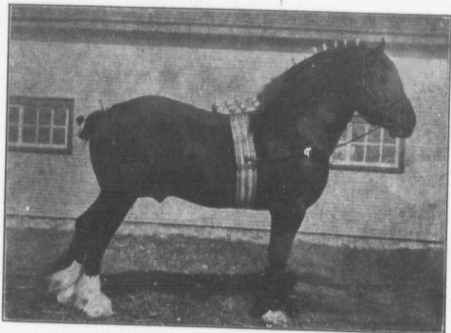
Practically the only hard work in corn culture is the throwing of corn on to the wagon and from the wagon on to the cutting box.

I have seen corn put into the silo at Ottawa one season and taken out in three years just as good as when it went in. Of what other feed can you say this?

Corn is about the only crop that will do well on any kind of soil.

It cost us \$1.60 to produce one ton of corn ensilage at the Experimental Farm at Ottawa in 1912. This includes all costs, including the rent of the land.

These brief paragraphs were typed down by an editor of Farm and Dairy when passing to an address given by J. H. Grisdale, Director of Experimental Farms at Ottawa, at the Dominion Dairy Convention at Kingston last winter.



**"On Guard" (13409), The 1913 Ottawa Grand Champion WILL STAND FOR SERVICE**

At the ALLISON STOCK FARM, CHESTERVILLE, Ont.  
SIRE, Prince Studly (2881); Dam, Lady Pride (14628); GRAND-SIRE, Cedric (2262); Dam's Sire, Baron's Pride (3067).

We will accept a limited number of mares for this Horse. Terms: \$50 to insure, Mares kept at owner's risk, \$1.50 per week. For further particulars apply to the owners'

**ALLISON BROS.**  
CHESTERVILLE - - - ONTARIO

**Manor Farm High Testing Holsteins**

I have now in my herd some of the highest testing Holsteins in Canada; 11, which I have recently tested, averaging over 4 per cent. fat.

I am entirely sold out of bull calves; the last out of Mercena of Campbelltown going to Mr. John Anderson, Oxford Mills, Ont., and it ought to make an excellent herd header for him. Am now booking orders for June calves.

The calves from my herd sire are in great demand, and you will have to speak quick if you want one.

The service fee of Prince Hengerveld of the Pontiacs (brother to Spring Farm Pontiac Lass, 44-152 lbs. butter in 7 days; 172 lbs. in 30 days, champion of the world and no wonder, she being a daughter of King of the Pontiacs, the greatest sire ever known) is now \$100 to approved cows only.

**GORDON S. GOODERHAM**  
The Manor Farm - Bedford Park, Ont.

## EGGS, BUTTER and POULTRY

For best results ship your live Poultry to us, also your Dressed Poultry, Fresh Dairy Butter and New Laid Eggs. Egg cases and poultry crates supplied.

PROMPT RETURNS

Established 1854

The **DAVIES CO.** Ltd.  
Toronto, Ont.

### Selected Seed Potatoes

Improved Empire State, a light resistant strain, very tender and less liable to rot than ordinary stock. \$1.50 per bag. Satisfaction, also light resistant, and Delaware (from Mountain), \$1.25 per bag.

ALFRED HUTCHINSON, - ONT.  
MOUNT FOREST.

### CATTLE AND SHEEP LABELS

Size	Price	Per Tag
Cattle	75c	\$2.00
Light Cattle	60c	\$1.80
Sheep or Hog	40c	\$1.50

No postage or duty to pay  
Cattle also with name and address and numbers; Sheep or hog size with name and numbers. Offer your neighbors to order with you and get better price. Circular and sample free.

F. G. JAMES, - BOWMANVILLE, ONT.



### SYNOPSIS OF DOMINION LAND REGULATIONS

Any person who is the sole head of a family or any male over 18 years old, may homestead a quarter section of available Dominion Land in Manitoba, Saskatchewan, or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-Agency for the district. Entry by proxy may be made at any agency, on certain conditions by father, mother, son, daughter, brother, or sister of intending homesteader.

Duties—Six months residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 40 acres solely owned and occupied by him or by his father, mother, son, daughter, brother, or sister.

In certain districts a homesteader in good standing may pre-empt a quarter-section alongside his homestead. Price, \$1.00 per acre.

Duties—Must reside upon the homestead or pre-emption six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may enter for a purchased homestead in certain districts. Price, \$3.00 per acre. Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$200.00.

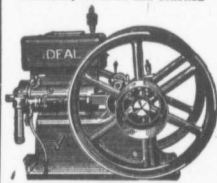
W. W. COBY.

Deputy of the Minister of the Interior.  
N.B.—Unauthorized publication of this advertisement will not be paid for.

### GASOLINE ENGINES

1½ to 50 H.P.

Stationary Mounted and Traction



### WINDMILLS

Grain Grinders, Water Boxes, Steel Saw Frames, Tramps, Trucks, Etc.

**GOLD, SHAPLEY & MUIR CO., LTD.**  
Brantford, Windsor, Calgary

## IHC Wagons Are As Good As They Look

TO really know the value of a wagon you must know of what material it is made, how it is built and about how many years of satisfactory wagon service you may expect. When you know all there is to know about IHC wagons it is safe to say that your next wagon will bear the IHC trademark—the stamp of quality and honest value.

Every piece of wood used in IHC wagons is carefully selected and air-dried. Only in air-dried lumber does wood retain its full strength and elasticity. All steel or iron is selected with the same care to secure the greatest possible strength. Thorough knowledge of the strain each part must stand is necessary because a wagon, like a chain, is no stronger than its weakest part. Every part of IHC wagons



The finishing touch, the thing that adds to the life and appearance of an IHC wagon, is pure paint. Cheap paint may improve the appearance of a wagon for a short time, but after that is a positive detriment. Only pure paint is used on IHC wagons. It fills the pores of the wood, prevents shrinking, swelling, warping and twisting, and acts as a wood preservative.

There are many other reasons why IHC wagons are such good wagons, why owners say they are the best and most satisfactory. Have the IHC local agent show you an IHC wagon, or, if you prefer, write the nearest branch house for catalogue.

International Harvester Company of Canada, Ltd.

EASTERN BRANCH HOUSES  
At Hamilton, Ont.; London, Ont.; Montreal, P. Q.;  
Ottawa, Ont.; St. John, N. B.; Quebec, P. Q.  
Built at Clatham and Petrolia, Ont.



## Petrolia Chatham

has the same relative strength. The men who build IHC wagons know why one part is built stronger than another, know the exact strain it will have to bear. This same thorough knowledge has enabled them to build a wagon of light draft, which puts the least strain on the horses, without impairing the strength or durability of the wagon.



## FERTILIZERS

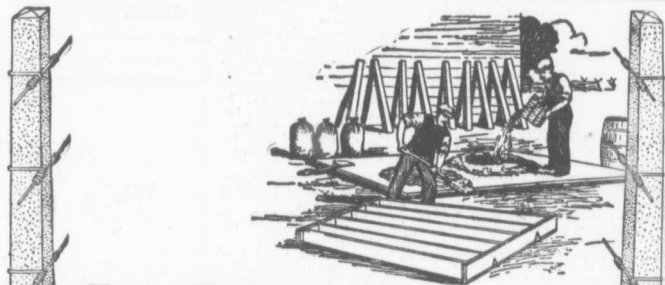
For information regarding all kinds of mixed and mixed fertilizers of the highest grade write THE WILLIAM DAVIES CO., LTD.  
West Toronto - Ontario

## \$3 a Day Sure

Send to your address and we will show you how to make \$1 a day every day. You can do this with no money at all. If you have the will to work, you can do it. The business fully described in our catalogue is a sure thing. The business fully described in our catalogue is a sure thing. The business fully described in our catalogue is a sure thing.

## FREE

catalogue giving descriptive list of rural books for farmers, stock raisers, poultrymen, etc. Write for Book Dept., Farm and Dairy



## Turn idle hours into concrete fence posts

EVERY farmer finds himself now and then with a few idle hours in which both himself and his help must look for "odd jobs" to keep them busy. Use these hours to make concrete fence posts. You can make a few at a time, storing them until needed. Then when you want a fence in the new field, your posts—everlasting, concrete posts—are all ready to use. The making of fence posts is only one of scores of every-day uses for concrete on the farm described in the book,

### "What The Farmer Can Do With Concrete"

NOTE—This 160 page book will be sent to you free upon request. You do not have to agree to use cement or place yourself under any other obligation. Just send us your name and address. Address,

Publicity Manager

## Canada Cement Company Limited

512 HERALD BUILDING, MONTREAL



WHEN you buy cement, remember that the farmers of Canada have found that "Canada" Cement is best. Look for the label on every bag and barrel.